



NATIONAL
GEOGRAPHIC

BUMPER
BOREDOM-
BUSTING
FUN STUFF!

KIDS



POLAR
BEAR

SCHOOL



MAKE
MARBLED
PAPER!



AWESOME
FLIGHTLESS
BIRDS!



BRAINY
QUESTIONS
ANSWERED!

Kiwi kids being denied the right to hear and learn.

Help us to buy 50 pairs of hearing aids with remote microphones.

Before Sophie was diagnosed with Auditory Processing Disorder (APD) we had been noticing small things. Small, but significant. For example, she would become anxious when in a noisy crowd. At birthday parties she would sometime put her hands over her ears and ask to go home early.

It was also difficult to distract her when she watched TV. She would fall asleep in the car on the way home from school. On several occasions she became teary before school as she worried about what was expected of her in class. I also noticed when I visited the school that she played by herself - happily enough - but regardless, on her own. She was also having a lot of trouble with reading and writing and spelling. We thought this was a phase and that maybe we were expecting too much of her. We were so very lucky to have a teacher that picked up her APD.

Once the hearing aids were in place and we had the system working properly, Sophie began immediately to flourish.

We are fundraising to support 50 kids in New Zealand that come from families that cannot afford to buy the hearing equipment they desperately need to lead a happy life and flourish, like Sophie did.



Sophie

Please donate via

Direct Credit: **ASB 12-3011-0519936-00** Reference: **Apd**

www.givealittle.co.nz [search The National Foundation for the Deaf]

Find out more at **nfd.org.nz/supportourwork** or email **enquiries@nfd.org.nz**
or call **0800 867 446, +64 09 307 2922**

Please accept my donation of \$50, \$25, \$20, \$10 Other \$

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☐ Visa ☐ Mastercard ☐ Diners ☐ American Express

Credit Card number Expiry /

Full name

Your postal address

Phone number

Signature

Email

Please post to The National Foundation for the Deaf PO Box 37729, Parnell, Auckland, 1152, New Zealand.

Hey KiDS!
Welcome to another bear-illiant issue of your fave mag! This



month, we find out how cute baby polar bears learn to survive on the sea ice. Plus, we check out some of the world's coolest flightless birds and discover WHY they can't fly! And have you ever wondered how come beaches have sand? Or where tap water comes from? These clever questions and more get answered on page 16.

Also this issue, hear how Nat Geo Explorers are helping to protect the planet, and get your grey matter in gear with another super-sized Fun Stuff section!

See you next issue,
The Nat Geo KiDS team

4 CUTE POSTERS!



Write to NG KiDS

Email editorial@ngkids.com.au

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NATIONAL GEOGRAPHIC Kids is the world's biggest-selling monthly general-interest magazine for children, with a worldwide circulation of 1.7 million in more than 20 countries.

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INSIDE SCOOP

The latest news from around the globe...

Whale sharks have eye 'teeth'!

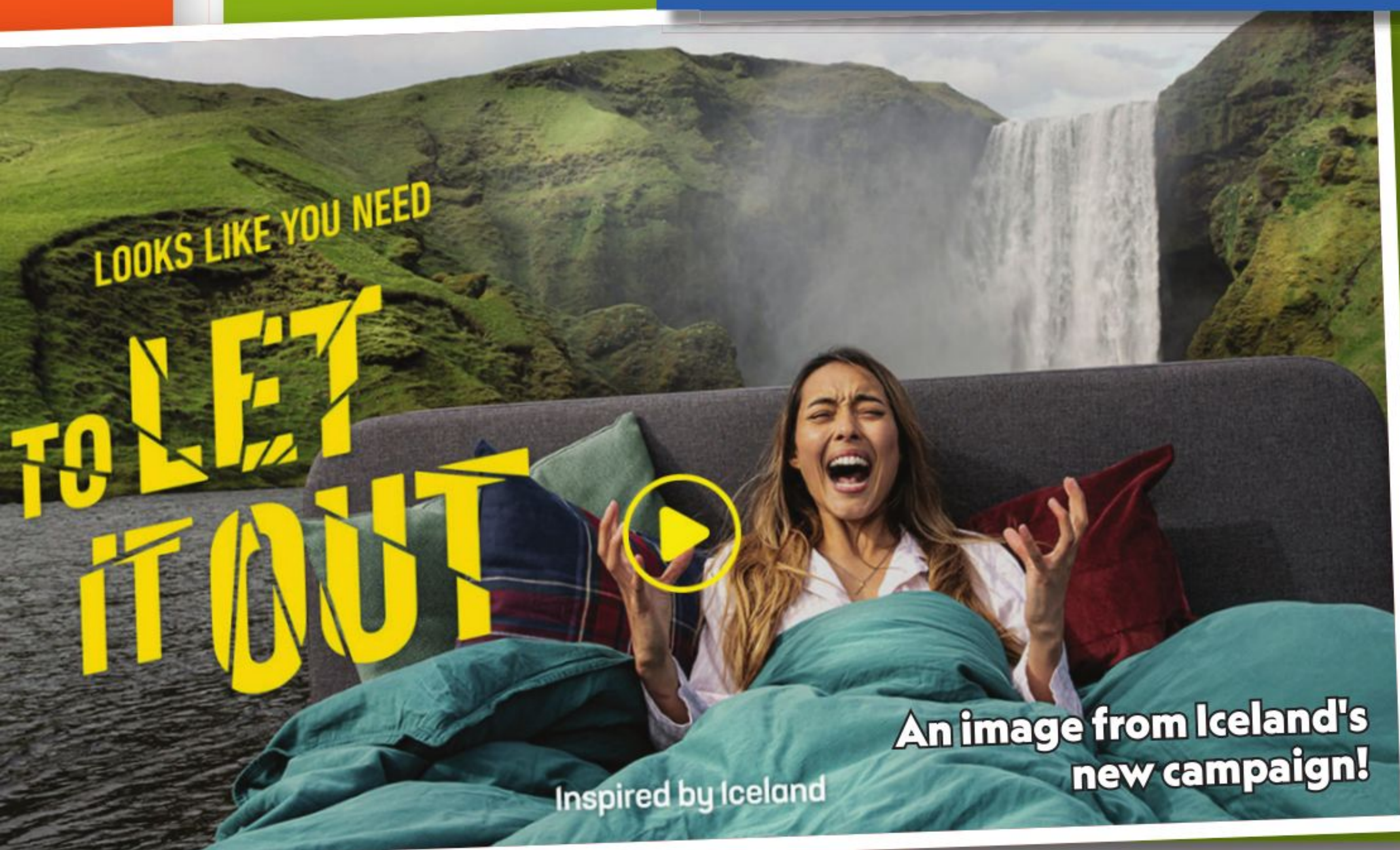


Yep, you read that right! **Ten-metre-long whale sharks** have **teeth** in their **eyeballs**, according to a study by scientists from the **Okinawa Churashima Research Center** in Japan. But although this *sounds* like something out of a **horror movie**, it's not as freaky as it first seems – these tiny teeth are known as **dermal denticles**, and they look and feel similar to **scales**. They form a **protective layer** over the gentle giants' eyeballs, helping them **glide** through the water more quickly as they feed on plankton and tiny fish. The question is, if they needed spectacles, would they visit the **optician's** or the **dentist's**?!

Eyes with a surprise!



Iceland invites you to scream!



Have you felt **frustrated** by recent **world events**? Well, if the continuing lockdown is driving you up the wall and you're feeling the need to **let off some steam**, the **Icelandic** tourist board has got a peculiar proposal for you. They're inviting people to **record themselves screaming** using a new app – they'll then **blast the yells** into the **vast Icelandic wilderness** from specially placed speakers!

Inspired by '**scream therapy**', the quirky campaign is making headlines around the world – and is in direct contrast to the **Japanese government's** request for people **NOT** to scream on **rollercoasters**, but "**scream inside their hearts**" instead!

It's a fun idea – we just hope Iceland's **mythical elves** don't mind their peace and quiet being disturbed! Altogether now... "**ARRRGHHHHHHHHHHH!!!!!!**"

● Head to lookslkeyouneediceland.com to record your screams!

Iceland scream image © Inspired by Iceland.
Illustration © Marek Jagucki; All others © Getty Images UK.

3

FAST FACTS!

National Bilby Day

Celebrate an important Australian species – the greater bilby – on 8 September!

1 This cute little **marsupial** was once widespread across the country, but **predators** introduced by Europeans such as **foxes** and **cats**, as well as competition for food with **invasive rabbits**, have left them under threat. There are now only around **10,000** remaining.

2 Rabbit-sized with **soft bluey-grey fur** and **strong front claws**, bilbies are **brill burrowers**, each digging several **spiralling burrows** to escape from predators. These **nocturnal** creatures use their **long ears** to help them **detect insects** to eat, and to **keep them cool** in the desert.

3 Much work is being done to reintroduce **captive-bred bilbies** to areas where they had gone **extinct**, with new **predator-free enclosures** set up around **New South Wales**. Many Australians now eat **chocolate bibies** instead of bunnies at **Easter** time!



Queensland plastic ban?



Some **single-use plastics** could be getting the heave-ho this time next year if a **proposed ban** by the **Queensland Government** goes ahead! **Plastic straws, cutlery, plates and stirrers** are on the list of items to be banned as part of the Sunshine State's plan to **reduce plastic pollution**, which already includes a ban on **single-use plastic bags**.

Designed to be used just once and then thrown away, these plastic items remain on the planet **forever**, and can cause **harm to wildlife**. A whopping **94%** of the **20,000 Queenslanders** questioned **supported** the proposal. Other Australian regions are considering similar bans, and many plastic items are already prohibited in countries including the **UK** and **France**.

Grey parrots brainier than kids!



Ever been called a **bird brain**? Well, take it as a **compliment**! Experiments conducted by researchers from **Harvard University, USA**, have found that an **African grey parrot** named **Griffin** can **outsmart kids aged 6-8**, as well as **Harvard University students**! Test subjects watched as **different coloured pom-poms** were placed **under cups** and then **shuffled**. They were then shown another pom-pom and had to point out which cup the **matching one** was under. The aim of the game was to test the brain's ability to **retain info** about items **no longer in view**. Griffin **outperformed all of the children**, and did equally well or **better than** the uni students. Sounds like he passed with flying colours!



A bird brain you say? Why, thank you!

Who's a clever boy then?



**CRAZY
EVENT**

PALIO

AUG

16

Bet the horses are happy to have a break from this year's Palio – the world's **oldest** (and most **controversial**) horse race has been cancelled due to COVID 19! Dating back nearly **800 years**, the event sees ten jockeys, each representing a district of **Siena in Italy**, battle it out in a frantic **bareback** (*saddleless*) race.

A dusty track is set up around the city's central square, the **Piazza del Campo**, and the first horse to do three laps, with or *without* a jockey, wins! While the race itself only lasts for about **75 seconds**, the **electric atmosphere** and **celebrations** go on for days. The winning district bags a special painted banner – and a priceless sense of pride!

MAKE IT A DATE

What's going
on this month?

AUG

29

SEPT

-6



Shinju Matsuri

It's the big Broome festival!
shinjumatsuri.com.au

SEPT

6



Father's Day

Give your dad a card today!

SEPT

7



**National Threatened
Species Day**

Raising awareness of
Australian animals in trouble!

SEPT

8



International Literacy Day

Celebrate the importance of
reading and writing!

SEPT

19



**International Red
Panda Day**

It's these cuties' special day!

WHAT'S UP?

This month's top films, games, TV, events and books!

We Bare Bears: The Movie

The beloved bears from **Cartoon Network** now star in their very own movie! When the three bears' **wild antics** get out of control and they're threatened with **jail**, the trio decide to go on an **epic road trip** to **Canada** filled with **new friends** and **massive parties**.

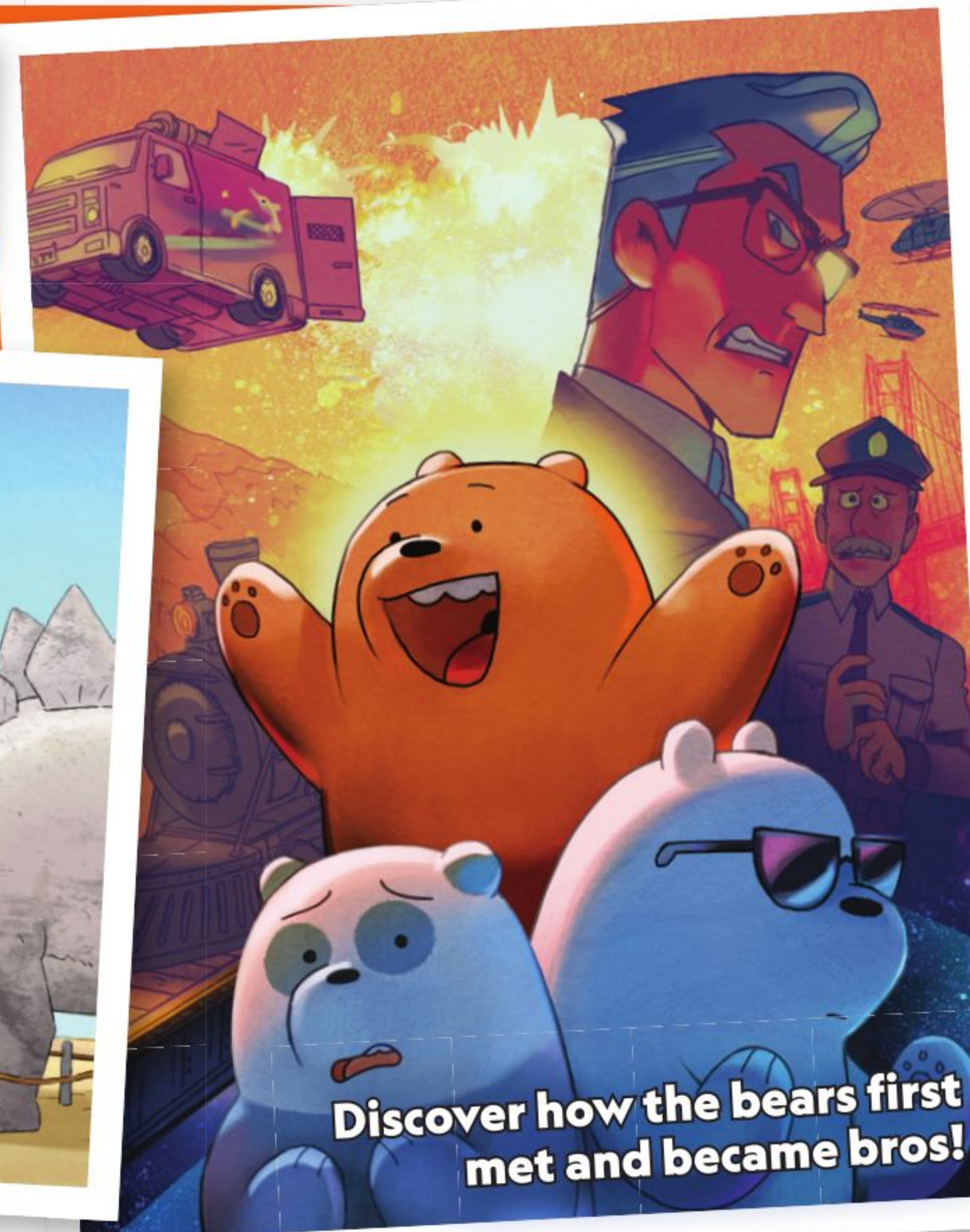
Unfortunately, they're chased all the way by the sinister **Agent Trout** – he wants to **split** the 'brothers' apart in the name of '**natural order**'! It doesn't *bear* thinking about! Will they make it to safety, or will their family bond be severed forever?!

● **Coming to Cartoon Network 12 September**

Follow Panda, Grizz and Ice Bear on their greatest adventure yet!



Discover how the bears first met and became bros!



Expect more magic and mayhem in season three of *Just Add Magic*



What will the girls cook up next?!



Just Add Magic

When **Kelly Quinn** and her two BFF's, **Darbie** and **Hannah**, stumble upon her grandma's **magical cookbook**, the trio begin to unlock the secrets and curses that befall their small town. In the first new episode of **season three**, ***Just Add Time Travel***, a **new recipe** alters the **course of history** when Kelly's grandma appears from the year **1975**! With everything turned topsy-turvy, the girls must **travel back in time** to set things right.

● **On Nickelodeon Mondays to Thursdays at 7pm from 21 September to 8 October**

The Secret Garden

It's the early **1900s**, and when **Mary** is **orphaned**, she's sent from her home in '**British**' **India** to **England** to live with her **uncle** in a grand estate in the remote **Yorkshire Moors**. Used to being waited on by **servants**, and **unloved** by her **wealthy parents**, Mary is a **spoilt** and **prickly** kid. But her world view begins to change after she meets her **sickly cousin Colin** and discovers a **secret garden** hidden away in the grounds. Through the **magical power of nature**, the damaged children begin to **heal**, helped by local nature-loving lad **Dickon**.

● **In cinemas 17 September**

Mary's world is turned upside down when she moves to England



Enter ALL comps at natgeokids.com/au by 1 October

KEY



Website



Event



Movie



Game



App



Book



TV

Bondi Festival

Sydney's big beach bonanza has been rescheduled and reimagined for spring. Every step through the suburb will reveal arty experiences and live performances. Plus, there's the Bondi Vista Ferris Wheel and a brand-new roller skating rink!

● Bondi Festival runs from 26 Sept to 10 Oct. Check out bondifestival.com.au



Which wacky shows will you watch?

New books!

Aussie STEM Stars series

This awesome new book series celebrates Australia's top experts in Science, Technology, Engineering and Mathematics. Written by award-winning children's authors, they tell the real-life stories of plastic surgeon Fiona Wood, who invented 'spray-on skin' to help burns victims, reptile biologist Georgia Ward-Fear, who helps save native animals from invasive cane toads, and Munjed Al Muderis, a refugee who became a world-renowned surgical inventor and humanitarian.



HOPE: 50 Ways to Help Our Planet Every Day

Feeling a bit worried about the environment and climate change? Anxious about the future? This brilliant book could be for you! It's full of practical ways to help our planet, with case studies and easy activities to try. Plus, it answers questions about all kinds of issues, such as where exactly things end up when you throw them away. Best of all, it will leave you feeling hopeful about all the easy ways we can help make the world a better place. Brilliant!

RSPCA's Cheeky Chooks

If you've ever hung out with a chicken, you'll know they're sociable birds with strong personalities, who love taking dust baths and foraging. The problem is, over 70% of laying hens in Australia are kept in small cages. This great new game from the RSPCA teaches players all about these fantastic chickens and why their lives would be better 'cage-free'. Create your own 'henpire' of cheeky chooks and raise them to be happy and healthy.

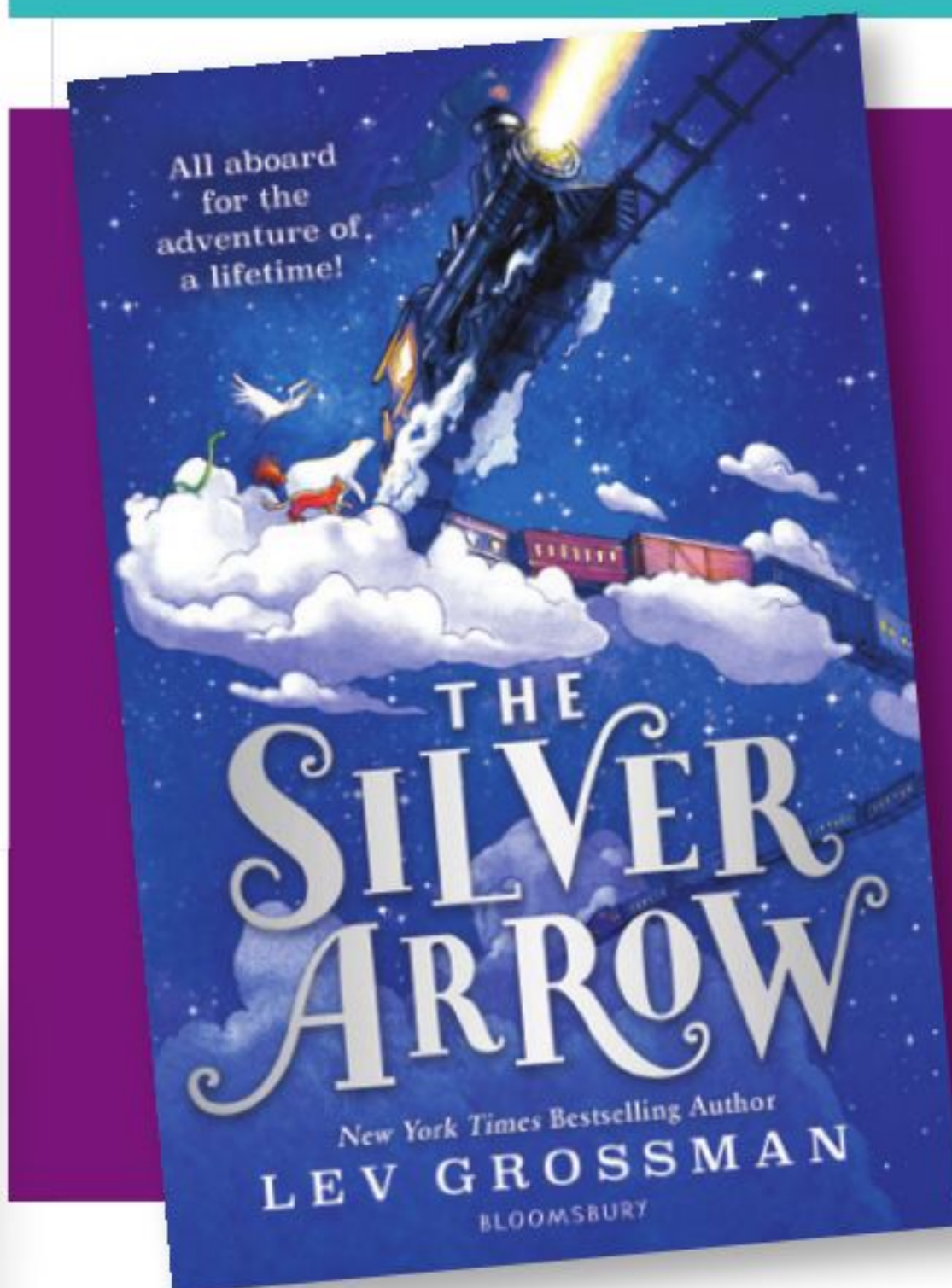
● Download this free game at your usual app store



Learn about chickens and have fun!

How to Make a Pet Monster: HodgePodge

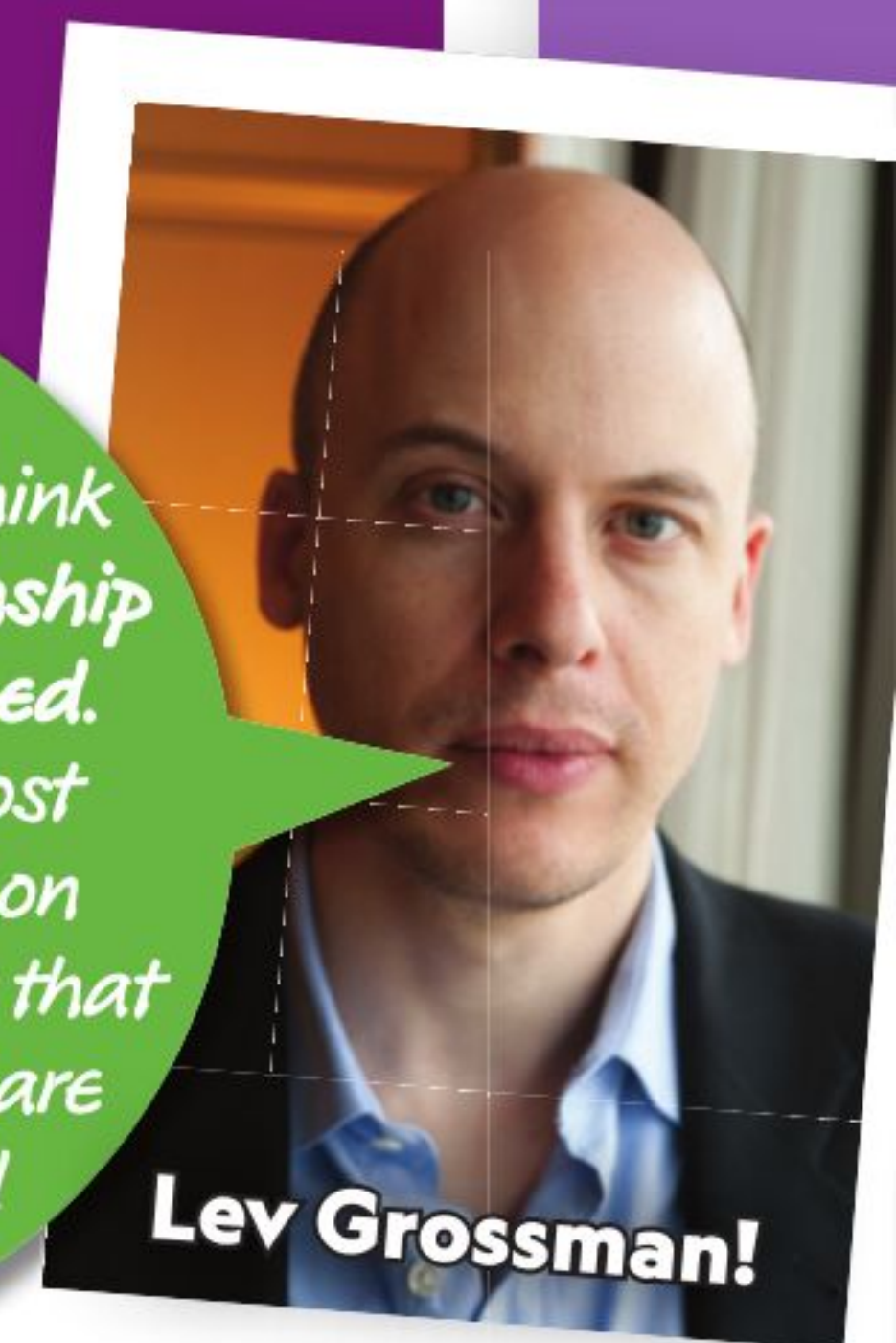
Lili Wilkinson, illustrated by Dustin Spence. Science-obsessed Artie does NOT believe in supernatural things. He also finds his new step-sister Willow quite terrifying. But when the pair get hold of a weird old book about making monsters, it doesn't take them long to conjure up a crazy creature! Luckily, the little monster isn't scary, but he is very good at creating mayhem – and fragrant farts. How will they look after him and keep him secret? And what is his mission?



The Silver Arrow Lev Grossman

Kate wasn't expecting much when she asked her uncle for a birthday present. Certainly not a colossal steam train called the Silver Arrow! Climbing on board with her brother Tom, Kate is whisked off to a station where lots of creatures are waiting for the train! It turns out that the siblings have a job to do – get all the endangered animals safely home. What an adventure!

I hope my book makes people think about how our relationship to nature has changed. Humans are the most successful animals on Earth, and our prize is that we now get to take care of the planet. And we can!



Lev Grossman!

WIN! Five winners will grab all of these books! Head to natgeokids.com/au and answer this... Q Cane toads came to Australia from which continent? a) Antarctica b) Europe c) South America

Enter by 1 October

THE

BIG PICTURE

NAT GEO KIDS'
image of the month



A double-crested cormorant is shown in mid-dive, its body angled downwards towards a vast, dense school of sardines. The cormorant's dark feathers and long, pointed beak are clearly visible against the blue water. The sardines form a thick, shimmering mass that fills much of the lower half of the frame, appearing as a dark, textured carpet of small fish. In the foreground, a large, moss-covered rock sits on the seabed, partially obscured by the sardines. The water is a deep, clear blue, with light filtering down from the surface, creating a sense of depth and tranquility. The overall scene captures a moment of intense natural behavior in a marine ecosystem.

Searching for sardines



This stunning snap of a **double-crested cormorant** plunging into the sea is the **Grand Prize Winner** of this year's **Audubon Photography Awards**.

Professional photographer **Joanna Lentini** has spent many hours taking pictures of **sea lions** around **Los Islotes** in **Mexico**, but this was the first time she'd encountered *cormorants* underwater. "I didn't see any birds manage to catch a fish," she remembers. "To add insult to injury **curious sea lion pups** would nip at the **hunting birds!**"

Superb divers, cormorants have **heavy, streamlined bodies**, and propel themselves through the water with their **powerful legs**, steering with their **tails**. They've been known to dive more than **90 metres** below the surface when hunting for prey. Cor!

● Visit audubon.org to check out the other winners.

POLAR BEAR

DAY TO CARE



Most polar bears give birth to twins.



The cute cubs peek out from their den

WE FOLLOW A FAMILY OF BEARS AS THEY LEARN TO LIVE ON THE ICE...



Two tiny **polar bear cubs** poke their heads out of their **den** (left) in **Canada's Wapusk National Park** and scan the **snowy Arctic landscape**. They watch excitedly as their mum emerges, scanning the horizon for possible threats. The Arctic can be dangerous for polar bears, even though adults are the **largest land carnivores on Earth**. Their mum grunts, indicating that it's safe for the twins to leave the family's igloo-like winter den.

After their eyes adjust to the sunlight, the pair clumsily scramble after Mum. Although they're roughly **two months old**, the cooped-up cubs have **never really used their legs** before. Soon they're **play wrestling** like little kids until their mother has had enough, grunting again to signal that **playtime's over**. It's time to find food...



A polar bear family crosses the snowy landscape in search of food

COPY CUBS

While the **sea is frozen**, polar bears almost **never stop hunting**. Between **March** – when **mums and cubs leave their dens** – and **July**, the predators can **walk** out onto the **ice-covered ocean** for an all-you-can eat **seal** buffet. But it's not because they're constantly hungry. They need to **store up enough fat** to survive the **summer** when the **ice melts** and **hunting becomes difficult**.

The enormous animals wait on the **frozen surface** to **snatch seals** from **gaps** in the ice.

"The youngsters learn by **imitating**," says **Alysa McCall**, a staff scientist at **Polar Bears International**. "While watching Mum hunt, the cubs put their paws in the same position. If she stops, they stop. If she stands, they stand. They mimic her so closely it looks like they're **performing a dance routine!**"

EAT, NAP, REPEAT

A week after leaving the den, the cubs have trekked to the sea ice many kilometres away from home. Mimicking their mum, the twins **lie flat on their bellies**, watching her watch a **hole in the ice** – she's waiting patiently for the **ringed seal** that **carved the hole** to come up for **air**.

Ringed seals are polar bears' **main prey** because the sea mammals' blubbery fat is **rich in calories**. Meals like this – as well as the **mother's milk** they'll continue to drink for **two years** – provide cubs with fuel to grow bigger and stronger.

Splash! The big bear **dunks her head into the hole** and latches on to a seal with her **jaws**. She yanks out the **70-kg prey** with her **hook-like claws**. The observant cubs study their mother's swift technique, then scamper over to share the meal with her.

Full from their tasty dinner, the cubs start feeling drowsy and snuggle up to their mother for a nap. Still small and **short-haired**, they need their mother's **8-cm-thick body fat** and **two layers of fur** to shelter them from the **freezing cold**.

Once nap time's over, the twins stand and follow their mum towards an ice ridge. It's time to eat – again.



Where polar bears live (in Greenland, they only live on its coastline).

Polar bears grow to **30 times** their birth weight by the time they leave the den. That would be like you weighing the same as a **big adult man** just **two months** after you were born!



Time to play wrestle!

Turn the page to find out more...

These juvenile bears search for prey in the distance



Polar bear cubs learn to swim by watching their mum



DANGER ALERT!

The cubs are tucking in to a seal when their mother suddenly **stiffens**. She's caught a whiff of something she doesn't like – a **male polar bear** approaching, probably hoping to **steal their seal**. That would be bad enough, but male polar bears are also known to **kill cubs**!

Even though the male weighs up to **770kg** (more than **twice as much as the mother**), she stands tall to protect her babies, crying out and **putting herself in between** the male and her twins. Luckily the male seems more interested in the seal than the tiny bears. The cubs scamper behind their mum as she steers them to safety.

Males aren't the only threat to the youngsters. Although polar bears are **good long-distance swimmers**, young cubs lack enough **fat** – called **blubber** – to protect them from **chilly water temperatures**. So they must carefully **navigate around the bigger ice cracks** – a slip into the icy sea could be **deadly**.

TIME FOR A DIP!

By **June**, the temperature creeps up, causing ice to **break apart more frequently**. Now the bears must **swim from ice floe to ice floe** in order to hunt. They've gained enough weight to brave the water but still need their mother's help to learn how!

Jumping in first, their mum coaxes the cubs to take the plunge. They both dive in, quickly scrambling on to their mother's back and **clinging to her fur**. She propels them forwards to the next ice platform by using her **dinner-plate-sized front paws** like **paddles**. Once ashore, the babies stretch out on the ground and **rub their wet fur on the snow** until they're no longer dripping water.

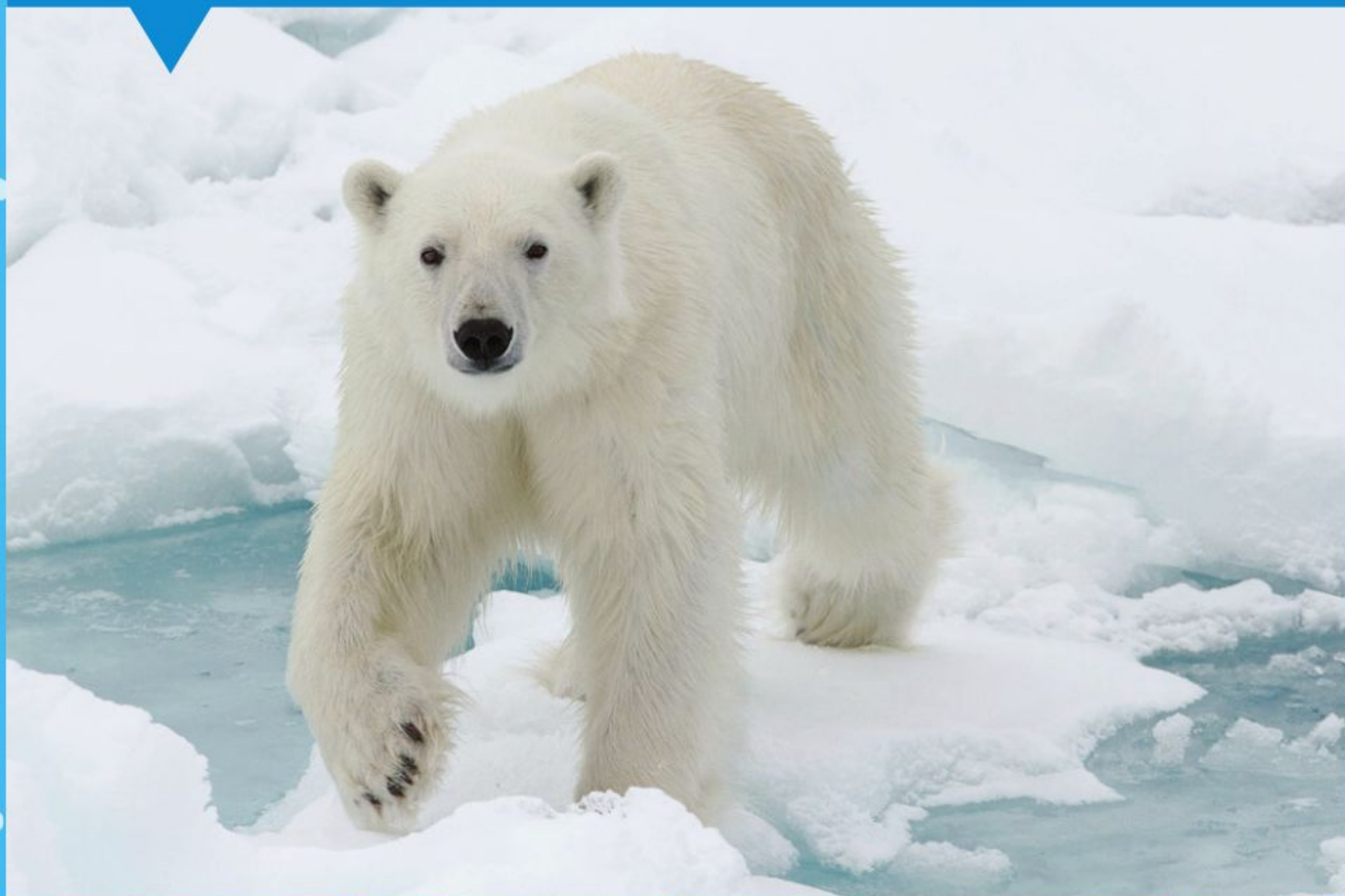
A cub leaps across melting ice to keep up with its mum



Polar bear

vs.

Grizzly bear



Take a look at how these huge bears stack up to each other...

DISAPPEARING ICE

Because of the **warming climate**, some polar bear populations are seeing **more water** and **less ice** *earlier* in the year. That means less time to hunt seals – and less time to bulk up for summer. Experts worry that this **shortened hunting season** will continue to **decrease polar bear numbers**. “The warming we’re seeing on the planet isn’t good for polar bears or their habitat,” says Alysa McCall. “Humans need to make **solving the climate crisis a priority**. Our future is the polar bear’s future.”

That’s why scientists are **closely watching** polar bear families like this one to see how their **behaviour** is affected by the changing climate. For now, the twins will continue to make the sea ice their home. They’ll hunt and feast as they learn the skills they’ll need to survive on their own. Hopefully, after a few years, they’ll have cubs themselves and they’ll be able to **teach them** how to survive on the ice.



Hudson the polar bear is prepped for his CT scan

Polar bear checkup

A 12-year-old at the doctor’s isn’t that weird. But when that 12-year-old is a **450-kg polar bear**, it is!

In April last year, **Hudson** the polar bear, a resident of **Brookfield Zoo** near **Chicago, USA**, became the first living **adult polar bear** to receive a **CT scan**. This special scan takes **digital images** that allow doctors to see inside a **body’s tissues and organs**. This can help vets find out if something is wrong *before* animal patients show symptoms.

Taking the scan – during which the patient **lies on a table** enveloped by a **circular scanning device** – wasn’t the hard part – getting the huge predator to the vet’s surgery was! First, the bear had to be **sedated** before staff transported him to the zoo’s hospital using a **bulldozer**. Once there, **20 people** had to lift and place the bear on the table. Whoa!

Since **global warming** is **shortening the lives** of some polar bears in the wild, the ability to quickly identify health issues in zoo polar bears like Hudson is crucial. Learning as much as we can from **captive polar bears** can help us understand how to protect them now – and in the future.

Oh, and Hudson’s diagnosis? He’s **healthy**. Phew!

Vets got an up-close look at the inside of Hudson’s **head and neck** thanks to this **3-D rendering** of his CT scan.



WHERE THEY LIVE

The Arctic region, typically along shores and on sea ice.

HOW BIG?

These bears can weigh up to 770kg – the weight of **TEN** adult humans.

FOODS THEY LOVE

Seals, seals, and more seals. (Also, occasionally, beluga whales and walruses.)

KILLER MOVES

Polar bears can knock their prey unconscious with a single swipe of their paw.

IUCN STATUS

Vulnerable – climate change is making it harder for polar bears to hunt successfully.

POLAR BEARS

GRIZZLY BEARS

Woodlands, forests, and alpine meadows in parts of the USA and Canada.

Slightly less massive than polar bears, grizzlies can weigh around 450kg.

Mostly fruits, nuts, and roots – but they’ve been known to scoff large prey such as moose, too.

Their bite force is strong enough to crush a bowling ball.

Least Concern, but grizzlies are threatened by habitat loss caused by humans.

Polar bear photo story

CAN A MOTHER POLAR BEAR RESCUE HER LOST CUB?!

A polar bear mum and her **one-year-old cub** were crossing an icy cliff near **Baffin Island, Canada**, when the curious youngster wandered off to explore. But it panicked when it lost sight of its mother and became **trapped** at the bottom of the ice wall!

Hearing a radio report of the situation, **wildlife photographer Paul Goldstein** rushed to the scene by snowmobile and captured the drama from a distance...



1

SEPARATED

"When I got to the scene, I could only see the **mother** at the top of the ice," says Paul, who's been photographing animals for almost **30 years**. "After a few minutes, I finally located the youngster at the bottom of a **25-m ice cliff** on the opposite side of the ice." The one-year-old cub, called a **yearling**, was **distressed**, and the mum was calling back. "You usually never hear polar bears make this noise unless they're really **anxious**," Paul says.



2

STUCK ON THE ICE

The cub decided to climb in the direction of its mother's calls, **straight up** the ice cliff.

"Polar bears have **superstrong paws** and can **grip well**," Paul says. "But this cliff was **way too steep** for the cub to climb." The youngster **successfully scaled** some **large chunks jutting out from the wall** but eventually got **stuck** when it reached a section of solid **vertical ice**.



CUB

3

DARING JUMP

At the cliff top, the concerned mother knew her cub was close. "Like any bear, she 'saw' with her **nose**," Paul says. "She tracked her baby by its **scent**." But she needed to find a safe way down. Spotting a **soft, snowy ledge** 6m below her, the big bear carefully **backed out over the edge** and **slid down** with her **claws dug** in to the cliffside. She landed clumsily but **safely** on the ledge below.

MUM
TO THE
RESCUE



4

SAFE WITH MUM

The cub had **returned to the bottom** of the ice cliff, so its mother headed that way from the ledge. The pair finally spotted each other and the youngster **dived headfirst down a small slope** to nuzzle against its **relieved mum**. After finding an **easier route back up** to the top, the bears snuggled up together for a nap, exhausted from their adventure.

WHAT IS AVAXHOME?

AVAXHOME-

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fresh magazines, hot games,
recent software, latest music releases.

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All languages

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Brainy Questions

HEY,
SMARTY-
PANTS!

GOT BIG,
WEIRD
QUESTIONS?

WE'VE
GOT
ANSWERS!



1

Why do beaches have sand?

Well, most **sand** is made from **mountains** plus **time**! Over **millions of years**, **wind** and **rain** break off little pieces of Earth's crust. These bits travel down **rivers** and **streams** towards the sea, getting **smaller** and smaller as they **bump** against other **obstacles**. Eventually the bits reach the **ocean**, where **waves smash them** into even smaller pieces and push them onto the **shore** as sand.

Amazingly, some other sand, like on the **beaches of Hawaii**, is mostly made from **parrotfish poo**! Parrotfish accidentally digest some of the **coral** they're nibbling **algae** from, then poop it out as **sand**. In fact, one parrotfish's tummy can grind up enough coral to create up to **360kg** of **soft, white sand a year** – that's heavier than **four grown adult people**!



2

Where does tap water come from?

The **water** you use to **brush your teeth** will come from a local source like a **lake**, before passing through a **treatment facility**, heading to a **storage tank** and then into your house. But amazingly, that water has been around since the **beginning of Earth!**

Some scientists think our water arrived about **4.5 billion years ago** as **ice on meteorites** that slammed into our still-forming planet. Ever since, those water molecules have been **evaporating** from **oceans** and **lakes**, **condensing** into **clouds**, and **precipitating** (raining or snowing) over and over again. Which means that a **T. rex** might have sipped **the same water** you used when you last had a drink. Wow!



3

Why do avocados exist if animals can't eat their seeds?

To make **guacamole**! Just joking! In the **wild**, many new **fruit plants** grow after **animals eat** their **fruit** and then **poo** out the **seeds**. But avocados are too big for most animals to swallow whole – so how does the fruit still exist? You can thank **extinct animals** like **giant ground sloths**! Until about **10,000**

years ago, these **4.5-metre-long mammals** roamed the **Americas**, snacking on **avocados** and their **stones**. After they went extinct, scientists think that **humans** started **planting avocado seeds** to grow new plants. If they hadn't, **avocado trees** probably would have gone extinct too.

4

Why are ancient statues and buildings always white?

Because the **paint has come off!** **Ancient Greeks** and **Romans** painted their **statues** and **temples** in many **different colours**, but over the last few thousand years, the paint has **worn away**. Ancient artists mixed **colourful minerals** – such as crushed-up **malachite** for **green** or **azurite** for **blue** – with **beeswax** or **egg yolk**

to create paint. Today, **archaeologists** use **ultraviolet** and **infrared lamps** along with **chemical analysis** to discover the **traces** of colours and **patterns** left behind. So the next time you see an ancient statue, try to 'paint' it in your mind and **imagine what it might have looked like** thousands of years ago. Cool!



5

How do monarch butterflies know where to fly?



Because of **sunshine** and **magnetic fields**, that's why! Every **winter**, **monarch butterflies** fly around **5,000km** from **Canada** and north-east **USA** to **central Mexico** – even though they've **never been there before**. The **shorter days** and **cooler weather** send a signal that it's time for the monarchs to **migrate**. As they travel **south**, they use their **large, complex eyes** to look at the position of

the **Sun**, and their **internal clock** tells them what time it is. They then use that information to figure out which way is south, since the Sun changes position throughout the day. But what if it's **cloudy**? Monarchs can detect **Earth's magnetic field lines** – which run from the **north** of the planet to the **south** – to guide themselves on **overcast days**. The next big mystery scientists are trying to solve? How do the monarchs know when to **stop**?

6

What's the most anyone has counted to out loud?

One million! And you probably *won't* want to try breaking the record. In 2007, **Jeremy Harper** live-streamed himself counting out loud **16 hours a day** for **89 days** to reach his ginormous goal. Don't think a million seems all that big?

If you lived for a **million** days you'd be **2,737 years old**, and you'd need about **286** pieces of paper to type out a **million zeros**. A million **jelly beans** stacked on top of each other would reach **twice the height** that an **aeroplane** flies!



7

Do pets know their names?

Yes – kind of. Pets **don't speak human**, but they do **recognise sounds**. One study has shown that pets know the difference between the **names** we've given them and **similar-sounding words**, even when said by a **stranger**. Scientists think that dogs and cats learn to listen for the sounds that make up their name because responding often means **cuddles** and **treats**. So why does your cat not always come when it's called? It probably knows its name – but it's just **ignoring you**!





8 What's the farthest we've sent something into space?

About **22.2 billion km**! In 1977, **NASA** scientists launched two spacecraft, **Voyager 1** and **Voyager 2**, to study the **outer planets** of our **solar system** and **beyond**. Today **Voyager 1** is the farthest thing we've sent into the universe, while **Voyager 2** is an impressive **18.5 billion km** away. Each far-flung vessel carries a **gold-plated disc** with

messages for extraterrestrials. So what would a travelling alien receive from us Earthlings? **Music, whale calls, greetings in 55 different languages, and photos of astronauts, aeroplanes, and kids in classrooms**. Each disc also has playing **instructions** in case aliens ever find this hi-tech message in a bottle. Cool!

9 What's inside the Great Pyramid of Giza?

Not much anymore! The **Great Pyramid** was built about **4,570 years ago** as the final resting place of the **Egyptian pharaoh Khufu**. It also stored all the stuff he'd need in the afterlife, like **bread, fruit, furniture, clothes** and **jewellery**. The **146-m-tall** stone structure was Khufu's way of telling people that

he was **super important**. But it may also have screamed, "Hey, there's lots of stuff to **steal** inside!" Today you can walk through a **passageway** deep into the centre of the pyramid until you reach the **King's Chamber**, which has a **granite sarcophagus** in it – but **nothing else**.



10 What do beavers smell like?

Freshly baked cookies, bizarrely! If you could get your nose close to a beaver's **tail**, you'd sniff a goo called **castoreum** that beavers use to mark their territories. Despite coming out of their **bums**, this slimy stuff smells a bit like **vanilla**, due to beavers diet of **leaves** and **bark**. Some people put this natural ingredient in **perfumes** and **foods**, but it turns out it's pretty hard to 'milk' a beaver. Plus, it's kind of gross!



TOP 10 Flightless BIRDS

They might have beaks, feathers and wings – but more than 40 types of bird on our planet can't take to the skies. Meet our favourites...

Pah! Who needs to fly anyway?

DID YOU KNOW?

The idea that ostriches **bury their heads in the sand** is a **myth!** But when in danger, they do sometimes lie on the ground so that from a distance they're **mistaken for a rock**.

WHY CAN'T THEY FLY?

Millions of years ago, the ancestors of today's flightless birds *could* fly. But, over time, they lost the ability because it wasn't needed anymore.

Special skills

Some became **speedy swimmers** or **fast runners** instead. Others developed defences like **claws** and **sharp beaks** to fend off attacks. But many flightless birds evolved on **remote islands**, where there were *no predators at all*. Today, these island species are at real risk from extinction, because when animals such as **cats, rats or dogs** are introduced to their habitat by humans, the birds are unable to fly away from these new predators.

Bye bye birdies

The **dodo**, from **Mauritius**, the 3m-tall **elephant bird** from **Madagascar** and the giant **Moa** bird of **New Zealand** (who didn't have any wings at all) are just three examples of amazing flightless birds that became extinct because of introduced animal predators and over-hunting by humans.

1

OSTRICH

Lives: Africa

Meet the **largest** of all the living birds! Huge **muscular legs** allow **ostriches** to run at speeds of up to **70kmph**, while their height of up to **2.75m** means they can peer over long grasses. Ostriches also have the most **enormous eyeballs** of any land creature – almost **5cm across** – and can make **loud booming calls** that are often mistaken for lions' roars!

They lay the world's most humongous eggs, too – they're **16cm long** and about the same weight as a human brain! Ostrich omelette, anyone?



Ostriches are the **only bird to have just two toes** – one of which has a long claw to slash at predators such as cheetahs. Youch!

2 FLIGHTLESS CORMORANT

Lives: Galápagos Islands

This sea bird's stumpy wings mean takeoff is impossible, but underwater it's a **serious swimmer** and **dives deep** to spear fish from the ocean floor.

The only species of cormorant that can't fly (there are 29 different types worldwide), this bird evolved on the **Galápagos**, where there were no natural predators.

*If I just
shake 'em
a little
harder...*



A flightless cormorant holds its tiny tatty wings out to dry after a dive

*Don't start,
alright?!*

**Watch out
for the wing
knobs!**



3 STEAMER DUCK

Lives: South America

Don't be fooled by this duck's cute looks. These water birds are big (around **75cm long**) and tough, and will **viciously attack** birds of any species that enter their territory. During fights, **steamer ducks** grab their victim by the neck or head, then use hard orange **wing-knobs** to repeatedly 'punch' them. Brutal!

Their name comes from their habit of **splashing water** as they paddle and flap across the water's surface – just like an old **paddle steamer boat**.



Three out of the four steamer duck species can't fly

4 CASSOWARY

Lives: Australia and New Guinea

Have you ever seen one of these funny-looking beasts?! With a bright blue-green face and dangling red **wattle**, the **cassowary** is the fanciest of the flightless birds. That **horny helmet** is handy for **barging through vegetation** in the rainforests where it lives, and **sharp claws** and a **powerful kick** help fend off predators. Females are the boss of this species – it's the male's job to guard a clutch of up to eight green eggs and then bring up the young.

Cassowaries also do something a bit gross – they **eat their own poo**! Their digestive system is not very efficient, and what passes through the gut still has a lot of nutrients in it. So, not wanting to waste good food, anything the cassowary eats goes through its gut twice!



Cassowary chicks and their protective dad forage for fruit in the forest



*Oh yeah,
check
my crazy
colours!*



5

PENGUINS

Lives: Various parts of the Southern Hemisphere

All 17 species of **penguins** use their weeny wings as **flippers**, taking to the seas instead of the skies. They **'fly' elegantly** through the water at top speeds of around **35 kmph**, but on land they waddle around clumsily, sometimes **sliding about on their tummies!**

I'm the king of the swimmers!

A king penguin's tuxedo-like pattern helps to disguise it as it hunts



DID YOU KNOW?

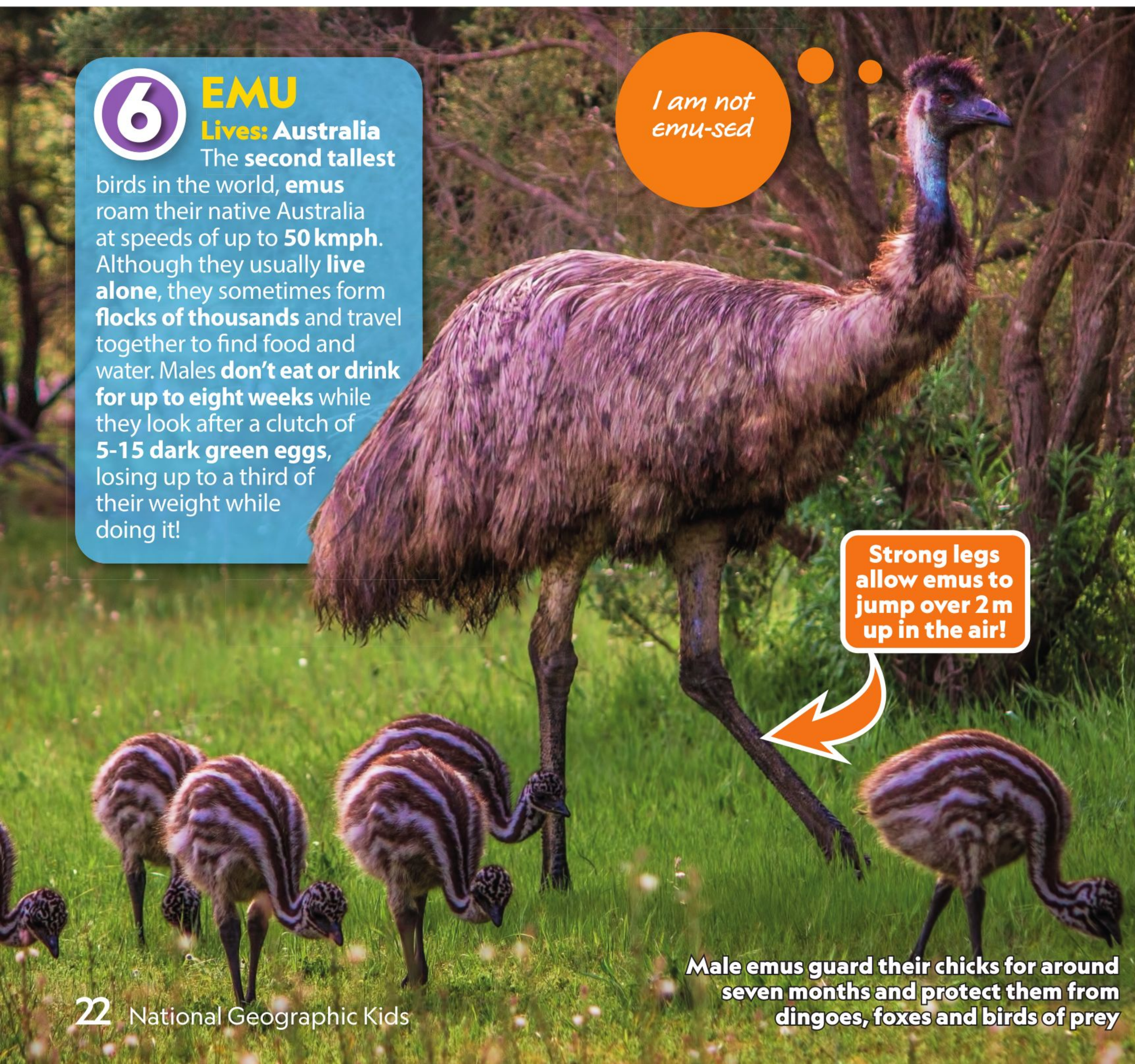
Female kiwis lay one **huge egg** per season, which is about a **sixth** of the mum's weight. Chicks can **live alone** after just **ten days!**

7

KIWI

Lives: New Zealand

More like a mammal than a bird, the **kiwi** is **nocturnal**, **digs burrows**, has **hair-like feathers**, **tough skin** and a strange **cat-like claw** on the end of each wing. Kiwis are also the only bird on Earth with **nostrils at the tip of their beak**. To catch worms they stamp the earth then sniff it before shoving their beaks into the soil. Lovely!



6

EMU

Lives: Australia

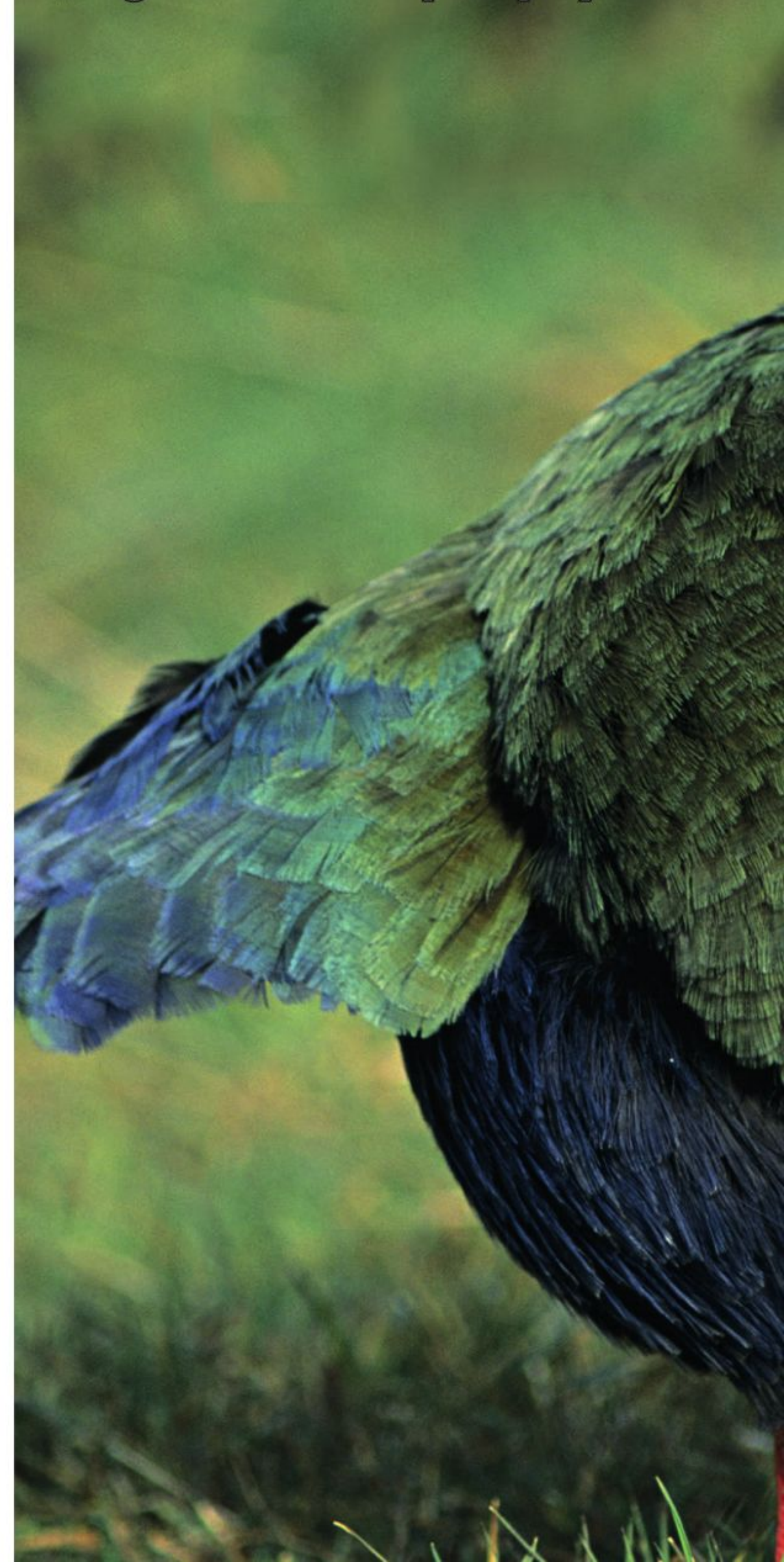
The **second tallest** birds in the world, **emus** roam their native Australia at speeds of up to **50 kmph**. Although they usually **live alone**, they sometimes form **flocks of thousands** and travel together to find food and water. Males **don't eat or drink for up to eight weeks** while they look after a clutch of **5-15 dark green eggs**, losing up to a third of their weight while doing it!

I am not emu-sed

Strong legs allow emus to jump over 2m up in the air!

Male emus guard their chicks for around seven months and protect them from dingoes, foxes and birds of prey

A takahē shakes its weak wings in a courtship display!





It's all gone pear-shaped!

This brown bird is a national icon - New Zealanders are even known as Kiwis!

9

INACCESSIBLE ISLAND RAIL

Lives: Inaccessible Island in the South Atlantic
This little guy is the **smallest flightless bird** in the world! Found on just one tiny hard-to-reach island, these rusty-brown birds with **red eyes** live happily all over the isle, munching on **worms, moths**, other insects and seeds. But there's always a risk that predators such as rats could accidentally be introduced to the area, and destroy the species.

Oi, get off my island!

These birds weave nests on the ground under the cover of vegetation

Pictures © Getty Images UK. With thanks to Kirsie Peck and Jamie Wyver from the RSPB.



Taka-whey-hê!



Takahēs mainly munch on grasses and seeds

8

TAKAHĒ

Lives: New Zealand

A **stocky blue bird** with a **bright red beak**, **chicken-sized takahēs** were thought to be extinct for over 50 years, until being 'rediscovered' in the **Murchison Mountains** in 1948. They've since been reintroduced to several predator-free islands where their population has increased to **over 400!**

10

KAKAPO

Lives: New Zealand

One of the rarest birds on the planet, there are just over **200** of these fat, green **nocturnal parrots** left, and they all have a name! They live on four small islands off the coast of New Zealand, safely away from hungry rats, ferrets and stoats. Despite weighing up to 6 kg, kakapos **climb trees** in search of fruit, seeds and leaves to eat, using their **tiny wings** to **steady themselves** when they jump down.

I am one peculiar parrot!

Males make booming calls that can be heard 5km away!

BONKERS BAT



You'd struggle NOT to return a serve with this beast of a bat!

The **world's largest table-tennis bat** measures nearly **3.6m tall** – that's roughly the height of an adult male **African elephant** and almost **20 times** bigger than a standard bat. **International Table Tennis Federation** rules state that rackets can be any size, so you *could* use it in **competition**. You'd just have to be able to **lift it** first!

the
LD'S LARGEST
PONG PADDLE
7' IN LENGTH BY 6' 8" WIDE AND 11.5" DEEP
REGISTERED FEBRUARY 2017 | COLUMBUS, OH
PHOTO: ANDREW J. HARRIS



Staff at Pins Mechanical Company in Ohio, USA – where the bat is on display – have to use both hands to play with it!

I ain't telling porkies, honest!



PERFORMS PIG TRICKS



Joy isn't just a one-trick piggy. The miniature swine, from **Iowa** in the **USA**, completed **13 tricks** in less than **60 seconds**, earning the title of **most tricks performed by a pig in one minute**. Joy's showstoppers include **playing a toy piano**, **lifting a ring off its stand**, and **unrolling a rug**. What a super swine!

SUPER SCOOPER!



Italy is home to the **Leaning Tower of Pisa**, and now... a leaning tower of **ice cream**! Italian **Dimitri Panciera** holds the record for the **most ice-cream scoops balanced on one cone**, keeping **125 scoops** of Italian ice cream, called **gelato**, on top of his cone for **ten seconds**. So what happened to all that gelato? Dimitri ate it, of course!



ORCHID MANTIS



KOMODO
DRAGONS





BOBCAT



THE LIFE OF HENRY VIII IN UNDER A MINUTE

To kick off this new history series, time-travelling mouse, Max, visits England to see the ruthless King Henry VIII...



Unfortunatly, in 1502 his older brother Arthur died, leaving young Henry heir to the throne.

I'm sorry Henry, I'm afraid Arthur has died...

How terribly sad.

Woo hoo! Oh yeah! I'm totally going to be King! Whoop!

Crikey! Under a minute? Then let's get to it!

Born 28 June 1491, Prince Henry was the second son of Tudor King Henry VII.

When his dad Henry VII died seven years later, Prince Henry became King Henry VIII and immediately married his dead brother's widow, Catherine of Aragon!

Forget about him! You can marry me, now! Aren't you lucky?

Gasp! Talk about jumping in my grave!

ARTHUR
DEVOUT
HUSBAND

Henry was a breath of fresh air after his boring dad. He enjoyed big parties and always took his mates out hunting!

Ha ha! I love the new king, he's such a brilliant laugh!

He had a big party with the French king Francis I and Charles V, ruler of the Holy Roman Empire. But it all went wrong after Francis beat Henry in a wrestling match. Within weeks they were at war!

Come on then! I'll take you all on!

Can someone take him off? Gasp!

Meanwhile, after 24 years of marriage to Catherine, Henry still didn't have a male heir.

No heir today...

You're gone tomorrow!

Henry wanted a divorce, but the Pope wouldn't let him. So Henry set up his own Church of England, made himself boss and granted himself a divorce!

Won't give me a divorce, eh?

I'll show ya!

Ooh, he should watch his temper, he'll do himself a mischief!

SMASH!

Henry's quest for a male heir led to him having six wives. Here's a handy guide!

- Catherine of Aragon
No male heir - Had a daughter - **DIVORCED**
- Anne Boleyn
No male heir - Had a daughter - **BEHEADED**
- Jane Seymour
A male heir! Hooray! She **DIED** ...
- Anne of Cleves
Too ugly! **DIVORCED**
- Catherine Howard
Treason! **BEHEADED**
- Catherine Parr
Outlived the King **SURVIVED**

Henry famously agreed to marry Anne of Cleves based on a portrait by Hans Holbein. But when he saw her in real life he divorced her immediately!

Cooee!

You've got to be kidding me!

He called her the Flanders' mare, i.e. she looked like a horse. Yikes!

Continuing wars in France and Scotland meant Henry ran out of money. He sold land and raided church coffers. The country was bankrupt.

Come on, you must have some more!

Put me down! Everyone can see my undies!

In his last days he was fat, bald and infirm. Everyone hated him, apart from his last wife Catherine Parr. She was a loving companion and step-mother to his children.

I still love you dear!

Bah!

Whew!

Did we fit it all in? What did I miss?

There's never enough time or space! See ya next month!

Illustration and words: Gary Northfield.

DARE TO EXPLORE

How quick-thinking scientists help protect the planet...



Scientists fit this Matschie's tree kangaroo with a tracking collar so they can study its movements

WANT TO BE A ZOOLOGIST?

STUDY Biology, geography
WATCH *FernGully: The Last Rainforest*
READ *Animalium* by Jenny Broom

THE ZOOLOGIST

Lisa Dabek studies endangered Matschie's tree kangaroos to learn how to better protect them in the wild. She talks about tracking one on the island of Papua New Guinea...



"I was with local scientists, trying to capture a **tree kangaroo** in a **cloud forest**, which is a **rainforest** high in the **mountains**. Like regular kangaroos, tree kangaroos have **pouches** and can **hop**, but they **live in trees**. We wanted to put a **camera** on one of the kangaroos so we could see what it did in the treetops.

"To find one, we looked for **claw marks** on bark and kangaroo **poop** around the trunk. We finally spotted a kangaroo **18m** up in a tree and cleared the area below of brush and waited. Typically, these kangaroos often **leap to the ground from treetops**, but suddenly this one **grabbed the trunk** with her **paws** and **slid down** like the tree was a pole! She **didn't seem scared** – these animals don't encounter a lot of humans – and let us gently put the **camera collar** on her before she hopped away. When the collar unlocked and fell off **five days later**, we had footage of her **munching on orchids** and **cleaning her pouch 30m** up in a tree!

"Little is known about these animals, and I want more people to discover them so we can save them together. If you're ever lucky enough to meet a tree kangaroo, you'll **fall in love** with it."

"Even the most difficult challenges always have **solutions**. I have **asthma**, but I figured out how to hike the mountains of Papua New Guinea."



A slow loris spends time in its rainforest home on the Indonesian island of Sumatra

THE WILDLIFE WARRIOR



"We should strive to make the world a better place, especially for wild animals that can't stand up for themselves."

"When I was working in **Thailand**, my team heard that **slow lorises** – **endangered primates** that live throughout **Asia** – were being **poached**, or illegally taken, from the wild. They were being sold so **tourists could take photos with them** and share the images on **social media**. Poachers were also selling the **shy, small** animals as **pets**."

"To catch the criminals, we **trained a local police team** how to **track them**. I was there for the **arrest** and **rescue operation** to make sure the animals were recovered safely. You could tell the lorises hadn't been well cared for. We wrapped them in **blankets** to keep them

Onkuri Majumdar works to save animals **stolen from the wild** in parts of **Asia** and **Africa**. She recalls rescuing **slow lorises** seized by smugglers...

warm, but they were so **hungry**, they **chewed up the cloth**. I was relieved to deliver the animals to a **wildlife rescue centre** that would care for them and **return them to the wild** when they were ready.

"Moments like these are why I do my job. I want to help **catch poachers** and encourage lawmakers to pass **laws against these crimes**."

WANT TO BE A WILDLIFE WARRIOR?

STUDY Veterinary science, forensic science

WATCH *Our Planet* (Netflix)

READ *A Wolf Called Wander* by Rosanne Parry

THE ADVENTURER

Carsten Peter climbs sizzling volcanoes to photograph them in action. He describes getting caught in the middle of a long eruption...

"A group of us were on an expedition on **Mount Etna**, a **volcano** in **Italy**. We hoped to photograph a **paroxysm** (say 'puh-ROKS-ism'). They're **massive eruptions** that produce **fire mountains**, or **wild sprays of magma**."

"We camped halfway up the peak and waited. In the middle of the night a **fissure**, or **crack**, suddenly appeared in front of us. **Ash** and **dust** started swirling around, stinging our eyes. The smell of **volcanic gases** filled our noses and volcanic **lightning** cracked in the air. The ground was so hot, the **bottom of my friend's shoes melted**!"

"The eruption lasted for **days**. We decided to stay so we could document everything, even though we **hadn't brought enough food**. We saw several paroxysms. During calmer moments, we dug under cooled ash to find **snow** we could **melt for drinking water**."

"It's one thing to understand the science of volcanoes, but it's crazy to **feel it up close**. Not everyone can **sleep on a volcano**. That's why I do what I do – to show people the **awesome power of nature**."

Photographer Carsten Peter snapped this photo of an explosion on Mount Etna



"Every volcano is as different as every human. Each one has its own character."

WANT TO BE AN ADVENTURER?

STUDY Geography, environmental studies and photography

WATCH The documentary *Volcanoes: The Fires of Creation*

READ *Extreme Planet: Carsten Peter's Adventures in Volcanoes, Caves, Canyons, Deserts and Beyond!*

JOIN THE OCEAN ADVENTURE!

ADVERTI

MISSING PIECES PUZZLE!

Can you match the circles to the main picture to complete this underwater scene?



A



B



C

ANSWERS
ON PAGE
49

Ahoy there!
Are you ready to uncover the mysteries of the sea? Come aboard our underwater exploration base. It's a bit like being inside an aquarium – with the fish watching YOU!

ALL ABOARD!

Explorers dive down and enter through an opening called a wet porch. They then have to shower off all the salt water so the metal inside doesn't rust!

ASTRONAUTS
TRAIN IN
UNDERWATER
BASES!

MOST STINGRAYS
HAVE A VENOMOUS
TAIL - WATCH OUT!

DEEP-SEA FOOD

It's not safe to cook on an underwater base, so scientists eat freeze-dried food – just like astronauts do!

BUILD IT!

This diver needs help collecting samples from the seabed. Can you build a clever LEGO robot to assist?

DID YOU KNOW?

DIVERS' VOICES SOUND SQUEAKY IN THE DEEP SEA! THAT'S BECAUSE THEY BREATHE A SPECIAL MIXTURE OF HELIUM AND OXYGEN.

Check out
lego.com/kids/city



60266 OCEAN EXPLORATION SHIP



60265 OCEAN EXPLORATION BASE



60264 OCEAN EXPLORATION SUBMARINE



60263 OCEAN MINI-SUBMARINE

TRUE OR FALSE?

PEOPLE WHO LIVE UNDERWATER ARE CALLED AQUANAUTS.

Answer:
True!

JOIN THE JUNGLE ADVENTURE!



EXPLORE
WORLD

Hey, Friends!
For our latest LEGO®
adventure we're going
to explore the world's
jungles – check out this
rescue base we've set
up in the rainforest!

Rainforests are
home to over half
the species of plants
and animals on the
planet, even though
they cover just 6% of
Earth's surface.
Cool, right?

LOTS OF
LIFE-SAVING
MEDICINES ARE MADE
FROM PLANTS FOUND IN
RAINFORESTS!

JUNGLES HELP
PROTECT THE EARTH FROM
CLIMATE CHANGE. THEY
ABSORB GREENHOUSE
GASES FROM THE
ATMOSPHERE.

Sloths
snooze for up to
20 hours a day!
They can sleep
hanging upside
down from tree
branches.

SEARCH AND FIND

Can you
find all these
things in the
Jungle Rescue
Base?

- ☐ 2 ELEPHANTS
- ☐ 2 SLOTHS
- ☐ 1 SOLAR PANEL
- ☐ 1 STETHOSCOPE
- ☐ 1 TURTLE
- ☐ 2 WALKIE TALKIES

ANSWERS
ON PAGE
49

JUNGLE RESCUE BASE
SET 41424

Elephants'
flexible trunks
contain around
100,000 muscles!
They're used for smelling,
breathing, trumpeting,
drinking and
grabbing things.

Check out
lego.com/kids/friends

BUILD IT!

Scientists think many
jungle creatures are yet to
be discovered! Can you create
a never-seen-before animal
with your LEGO bricks?

TRUE OR FALSE?

THE AMAZON
RAINFOREST IN SOUTH
AMERICA IS THE WORLD'S
BIGGEST JUNGLE!
True! It's about twice
the size of India.



41421 BABY ELEPHANT JUNGLE RESCUE



41422 PANDA JUNGLE TREE HOUSE



41423 TIGER HOT AIR
BALLOON JUNGLE RESCUE



41424 JUNGLE RESCUE BASE

JUNIOR EXPLORERS' CLUB

WILDLIFE WATCH

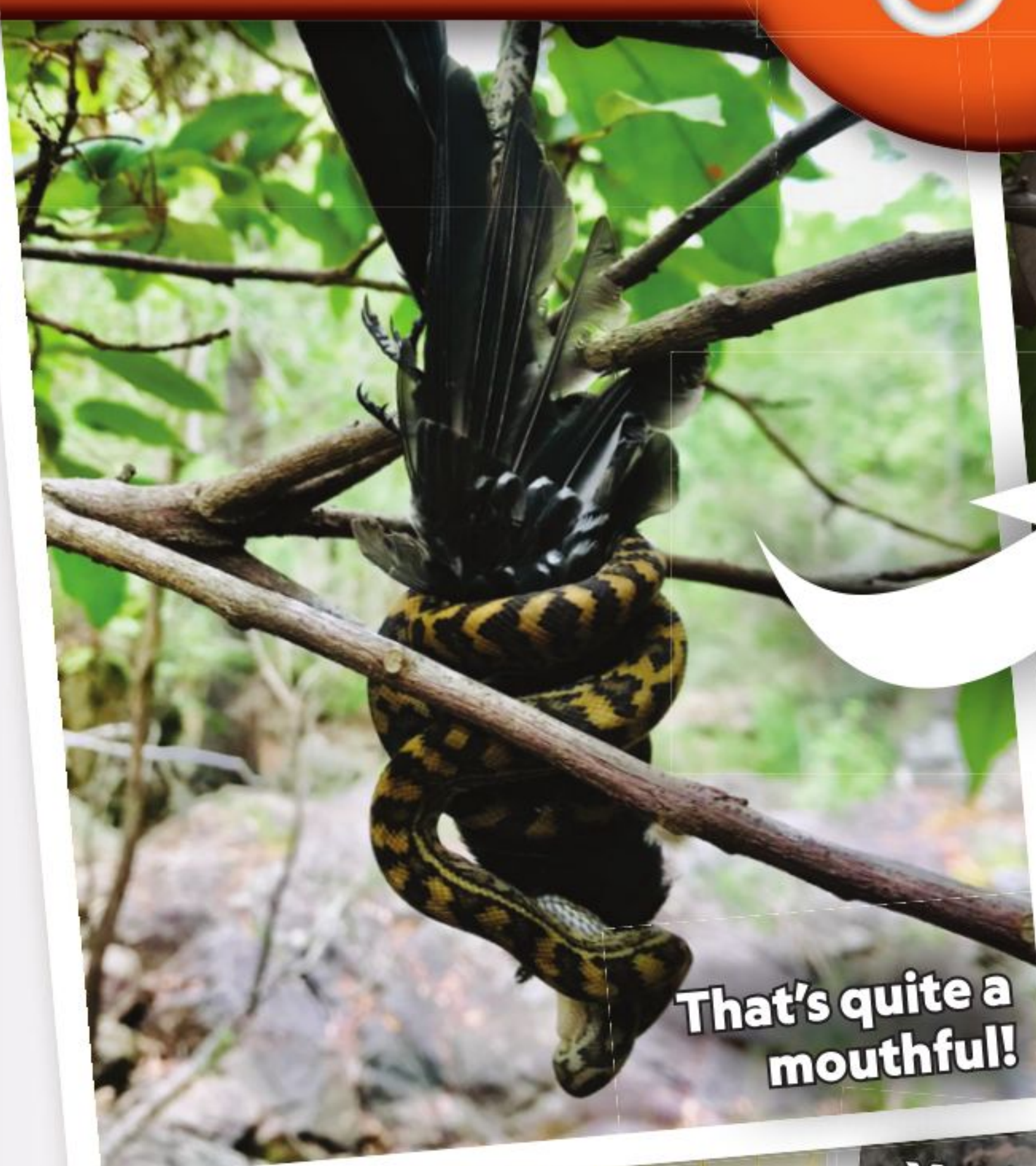


Hi NGK team!

In April, my family and I were exploring at **Mount Coo-tha**, Brisbane, when we spotted a tiny **baby carpet python** trying to swallow a **freshly-caught bird** that was **bigger** than him! We watched this ambitious little guy for a while as he twisted and turned trying to **squeeze his lunch** into a more **manageable shape**! It was a little gross but soooo fascinating. I wonder if he was able to fit the bird into his mouth or not!

Xavier, 7

● What an awesome thing to witness, Xavier! Amazing pics!



That's quite a mouthful!



Xavier can't believe his eyes!

SHIPWRECK SPOTTED!



Mischa and the shipwreck!

Hi NG KiDS,
One day my **mum** and I went for a **hike** and we found a **rusty shipwreck**! We went up close to look but the **tide was coming in fast** and we had to leave. It was amazing!

Mischa, 7

● Woah, cool find! We wonder what the story behind it is...

YOUR FUN STUFF MAKE ITS

Hi Nat Geo Kids!
This is my **3-D seal drawing** inspired by the **Make It** in issue 61. I hope you like it!

Rosalind, 10

● We do, Rosalind. It's such a fun way to use the technique!



COVER STAR!



Meet Ernie!

Name: Ernie
Breed: Kelpie cross Staffy
Loves: Story time, playing ball, going for a drive,
Hates: Thunder
Owner: Eddie, 7

We want to hear from you! Send in your artwork, jokes, craft pics and pet photos. Tell us about your wildlife sightings, hobbies, interests and opinions! A selection of our faves will be printed on this page! Email us at editorial@ngkids.com.au Every reporter on this page will get **Ocean Animals** a splashing new book all about the weirdest, smartest and sneakiest creatures in our seas!



WILD CONSERVATION

with Ben Britton



Last year I started **art lessons**. I enjoy painting the **animals** and **birds** on the **posters** that come with NGK magazine each month.
Hayley, 10

● Wow, Hayley, these are ace!

I live in **Tasmania** and I love **drawing local animals** and **birds**. I created this picture of a **kookaburra** using **pencil** on a **recycled** piece of **cardboard**.
Ruby, 12

● Beautiful colours, Ruby! Nice work.



Some people think that **tadpoles** and **frogs** are **disgusting**, but **not me**! Since I got my pets (tadpoles from our **garden pond**) we've watched them grow into **froglets** and they're nearly ready to **go back** in the **pond**. I love how **strong** their **legs** are (and their **arms**). I totally love tadpoles, they are so cute!
Nina, 8

● We love frogs too, Nina! Did you know frogs *blink* to help them swallow? It makes their eyeballs press on top of their mouth and push prey down!



DID YOU KNOW?

A painted dog can gobble up a full-grown gazelle in as little as eight minutes!

LET'S MEET THE PAINTED DOG

Where do they live?

The **savannahs** and **open plains** of **Africa**, as well as thicker **bush** and **forest**.

What do they eat?

These carnivores eat **impala**, **gazelle** and **puku antelope**, plus larger prey such as **wildebeest** and **zebra**.

How do they live?

They live in **packs**, ranging from **5–20 members**. An incredibly **social species**, they share their food, allowing **younger**, **sick** or **injured** members to eat first. Youngsters will spend a lot of time in a **den** while the older members of the pack **hunt**, though some pack members will stay

back to **babysit** the pups!

How big do they grow?

Depending on where they're from, **painted dogs** can weigh **20–40kg**. The **females** tend to be slightly **smaller** than the males.

How do they communicate?

With lots of **different vocalisations**! They communicate with the pack using **high-pitched squeaks** and **chirps**, or if a member is lost they will make a loud sound like a **bell**, called a **hoo call**! They also communicate using **ear movements**!

Ben's fave fact!

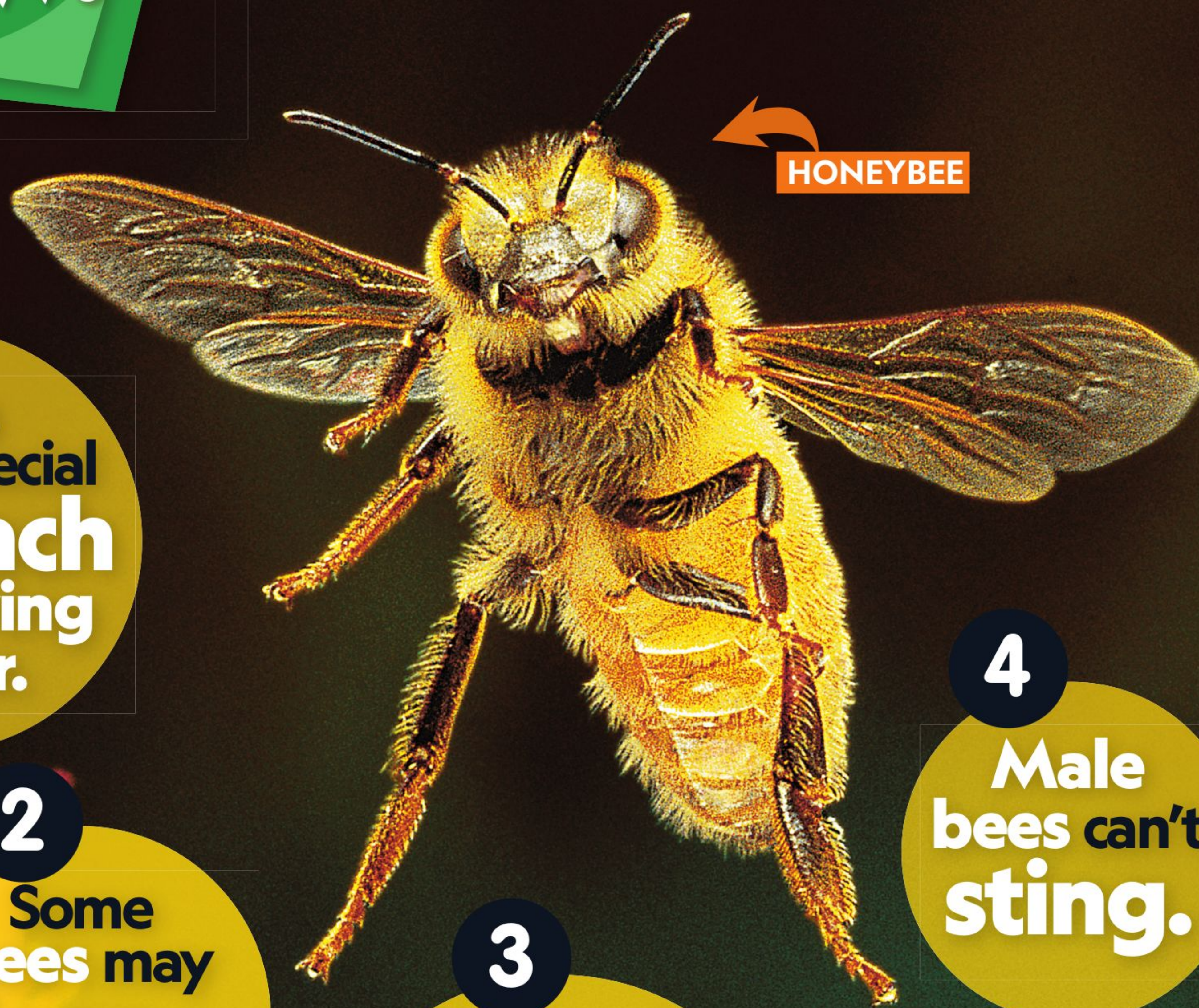
Painted dogs have a **unique way of hunting** – they **chase** prey in a **relay** form, **taking turns** to run after the prey. They can travel at speeds of up to **60kmph** for almost **5km** – exceptionally good stamina!



To learn more about Ben's conservation work, go to wildcatcentre.org.au

**Bet You
Didn't
Know!**

7 bee facts to buzz about



HONEYBEE

1

Bees have a special **stomach** for carrying nectar.

2

Some bees may **sleep** on flowers.

3

A bee beats its **wings** up to 12,000 times each minute.

4

Male bees can't **sting**.

5

In summer, a single hive can house up to **80,000** honeybees.

6

The **alkali bee** can visit up to **6,000** flowers a day.

7

Sweat bees like the **taste** of human perspiration.

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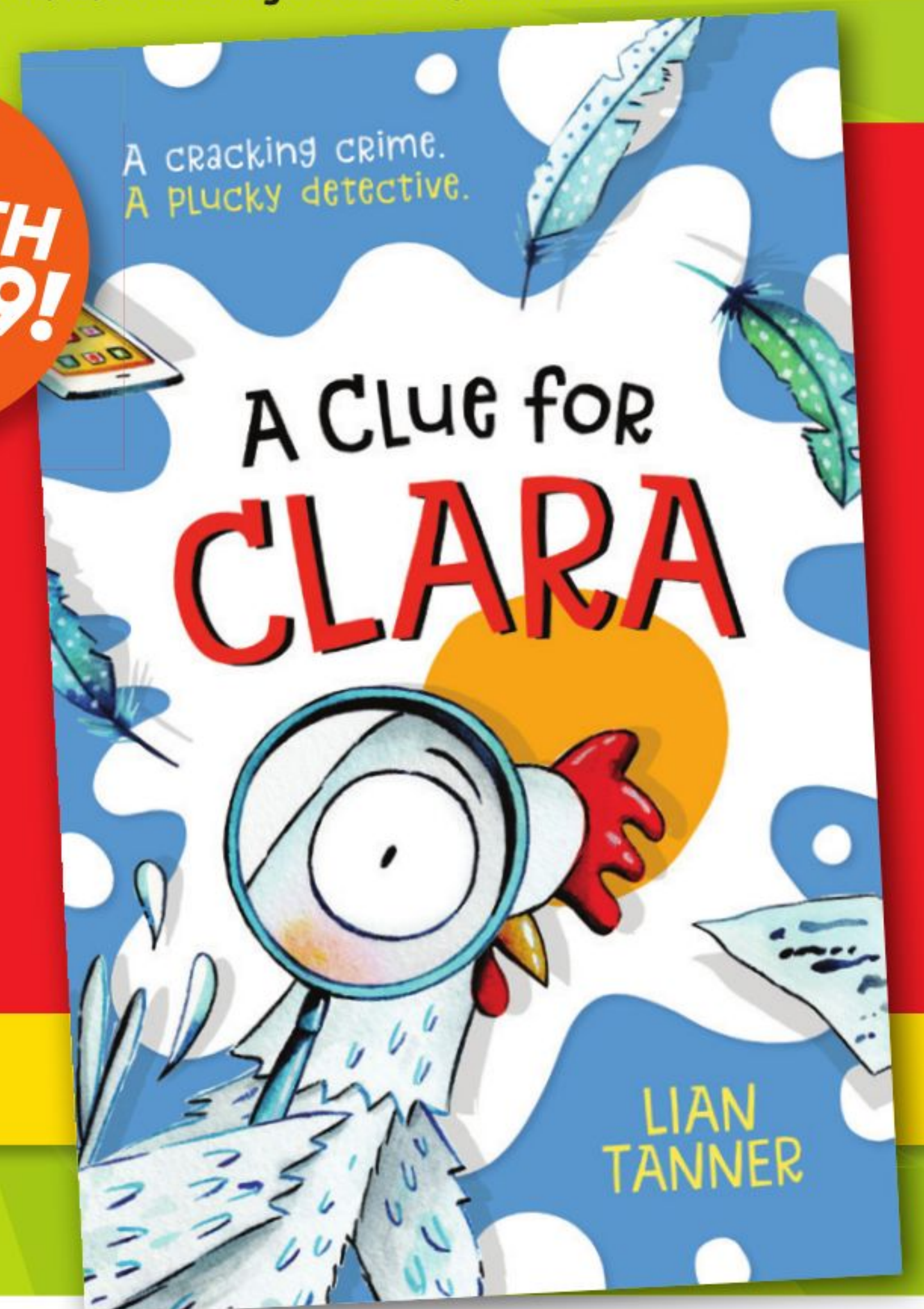
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The first 40 new subscribers this month will each scoop *A Clue for Clara*, the egg-cellent new novel from Lian Tanner, all about a hilarious hen who wants to be a famous detective!

Can a scruffy chicken crack a crime? Perhaps, if she's a genius like Clara! This clever little chook can read claw marks,

find missing feathers, and even knows morse code and semaphore. There's just one problem – no one takes her seriously!

But when she teams up with Olive, the daughter of the local policeman, Clara realises that she might just be able to solve the crimes that have been troubling the town of Little Dismal. How egg-citing!



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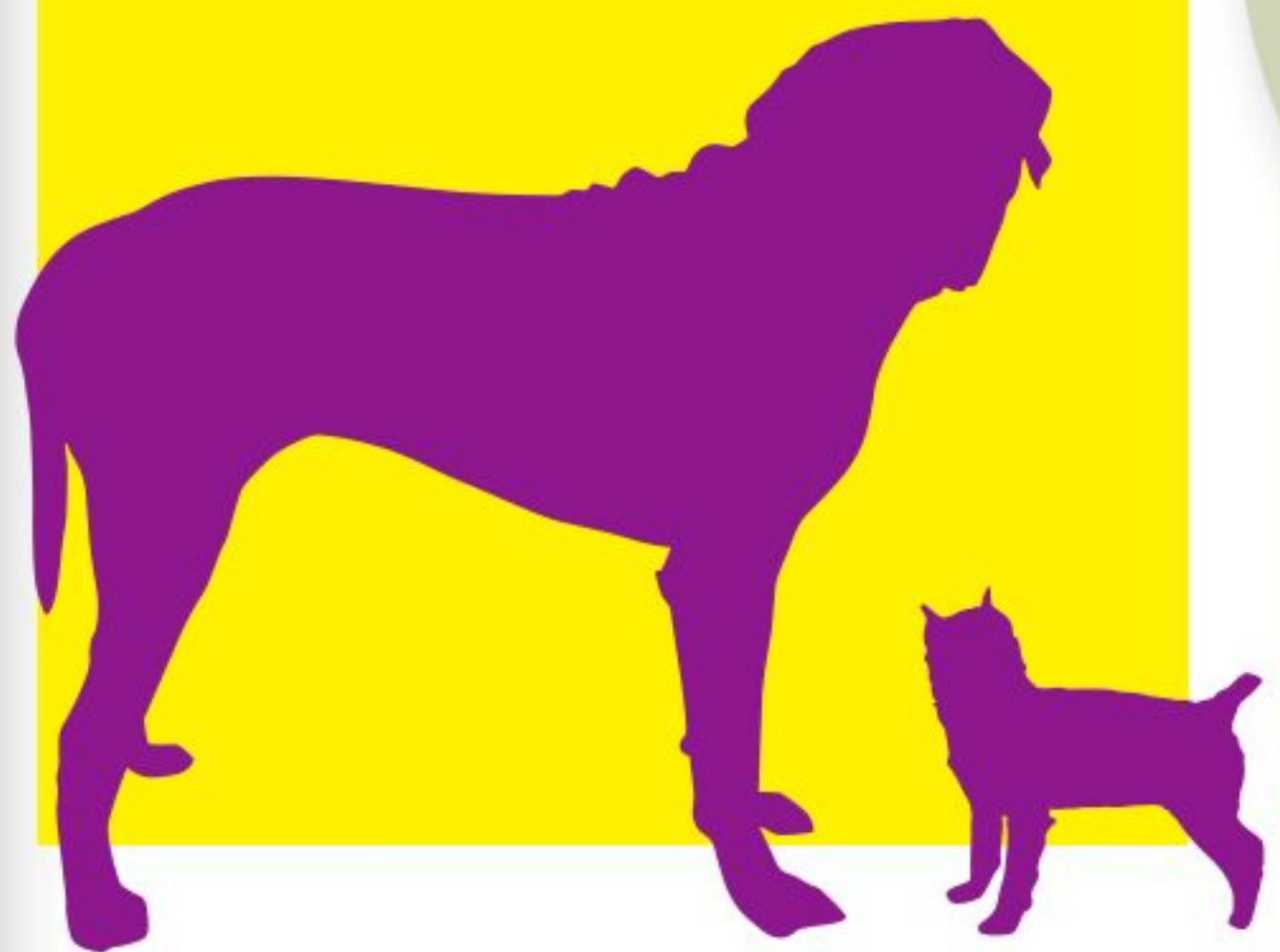
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weird but true!

If humans came in **as many sizes as dogs**, we'd range from **0.5 TO 5 METRES TALL.**



Check out these outrageous facts...



A cat's **top speed** is **50kmph.**



The regal horned lizard **squirts blood** out of its eyes to repel predators.

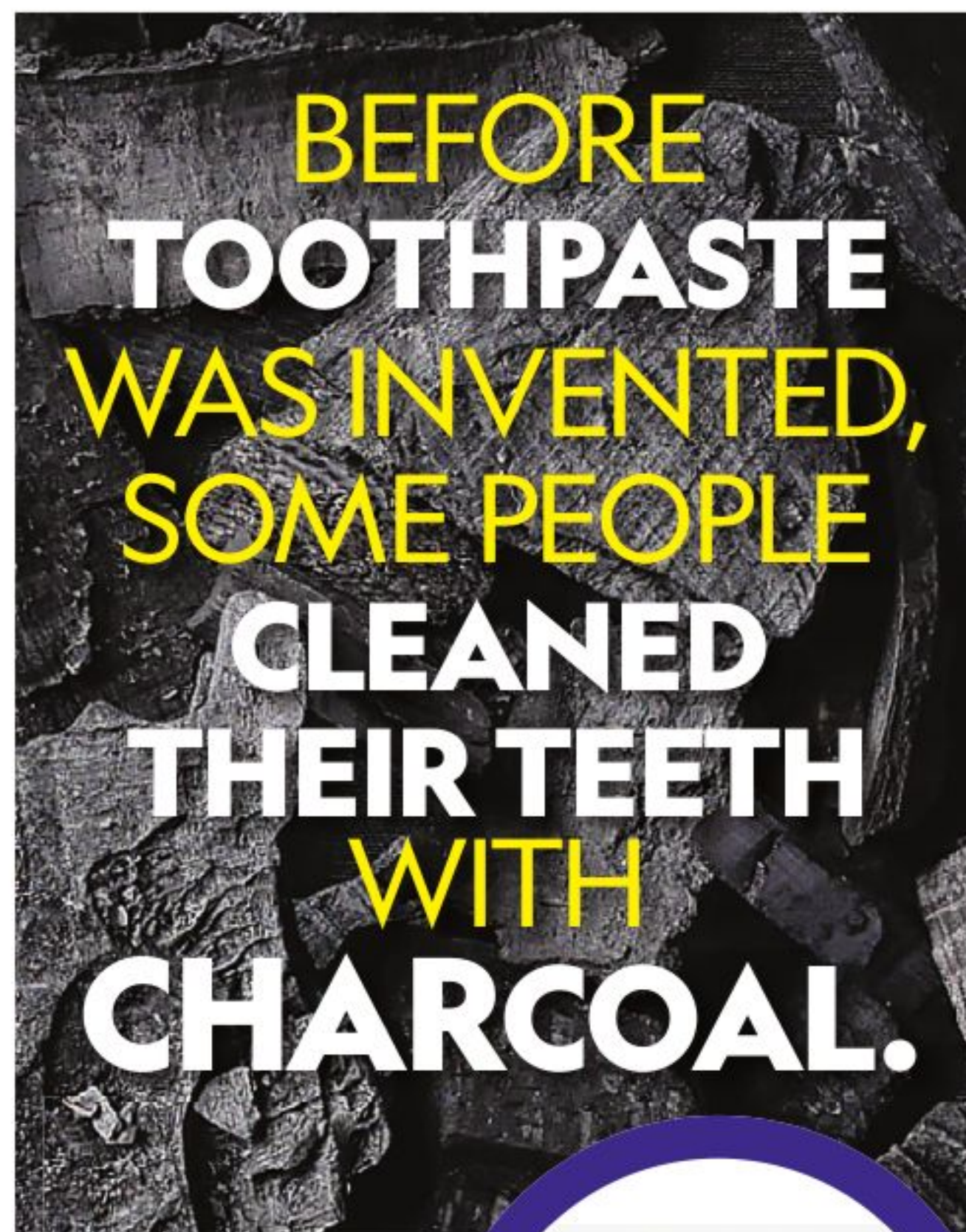
Many of today's pet hamsters can be traced back to one hamster family that lived in Syria in 1930.



IN ANCIENT TIMES, DOCTORS USED SPIDERS' WEBS AS BANDAGES.



BEFORE TOOTHPASTE WAS INVENTED, SOME PEOPLE CLEANED THEIR TEETH WITH CHARCOAL.



A WOMAN from Brisbane can remember almost every day of her life since she was 12 DAYS old.



THE LONGEST GAME OF MONOPOLY IN A MOVING ELEVATOR LASTED **384 HOURS.**

GREAT GEOGRAPHICAL CROSSWORD

How much do you know about the world?

DOWN

- 1 Latin American country that shares a border with the USA (6)
- 3 South American country, home to Machu Picchu (4)
- 5 Imaginary line around the middle of the planet (7)
- 6 One of the countries that makes up the United Kingdom (8)
- 7 An instrument used for navigating, marked with North, South, East and West (7)

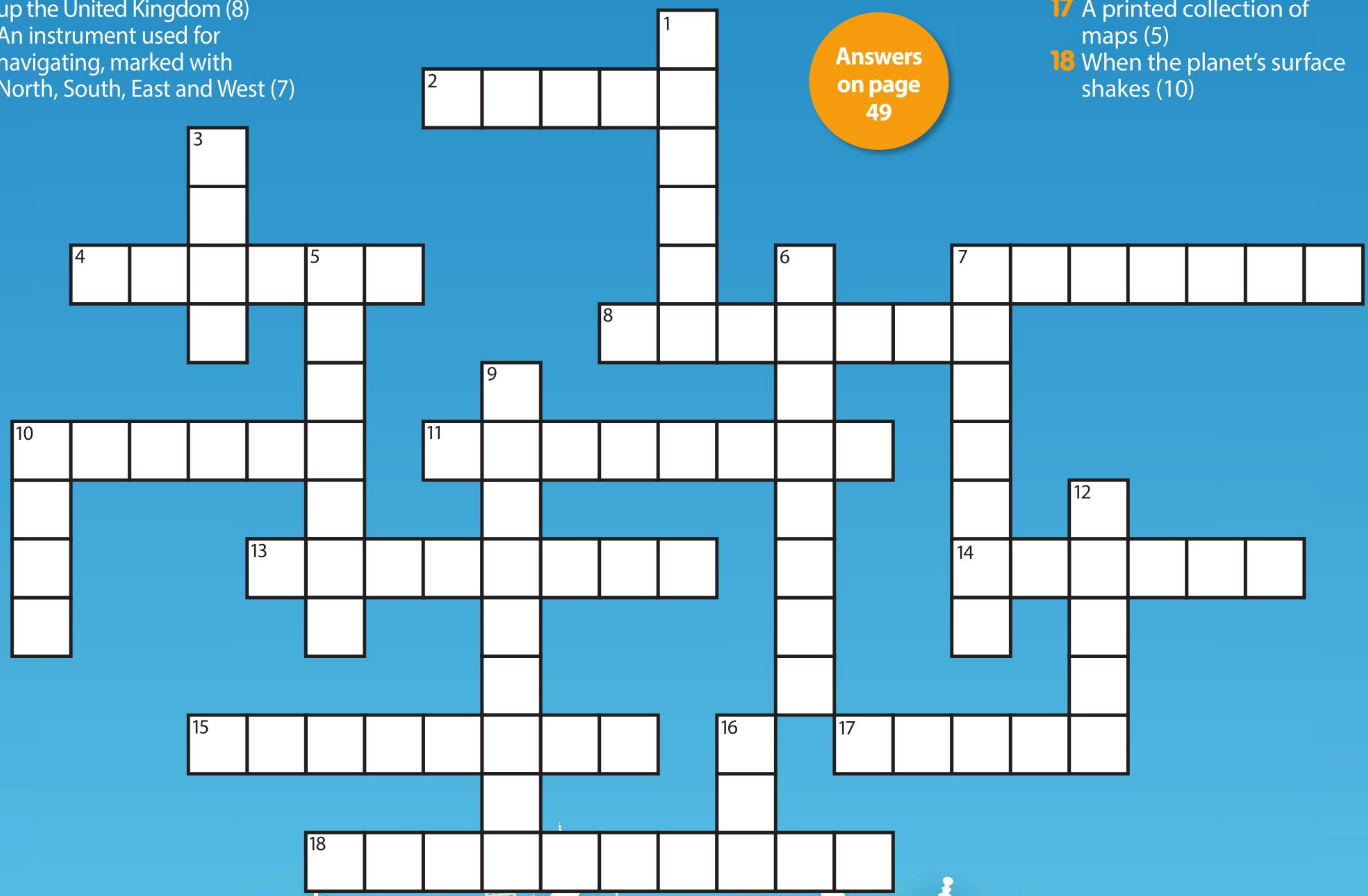
- 9 Expanse of land containing different countries – Africa, Asia or Europe for example (9)
- 10 You need an umbrella for this type of precipitation (4)
- 12 Capital city of France (5)
- 16 Where rivers end up (3)

ACROSS

- 2 Spherical model of the Earth (5)
- 4 Boundary of a country (6)
- 7 The general weather conditions of a region (7)
- 8 Hill or mountain with a crater or vent that lava and ash escape from (7)

- 10 World's largest country (6)
- 11 A route for pedestrians (8)
- 13 Large landform that hikers like to climb (8)
- 14 Winter or summer, for example (6)
- 15 Members of a country (8)
- 17 A printed collection of maps (5)
- 18 When the planet's surface shakes (10)

Answers on page 49



CITY SPOT THE DIFFERENCE

Can you find **20** differences between these two busy city scenes? **Answers on page 49**





WHAT IN THE WORLD?

DOWN UNDER

These photographs show close-up views of things in Australia. Unscramble the letters to identify what's in each picture. **Bonus:** Use the yellow letters to help you answer the joke below...

Answers on page 49



DRSRBFUOSA



RTEGA ARERIBR
EFRE



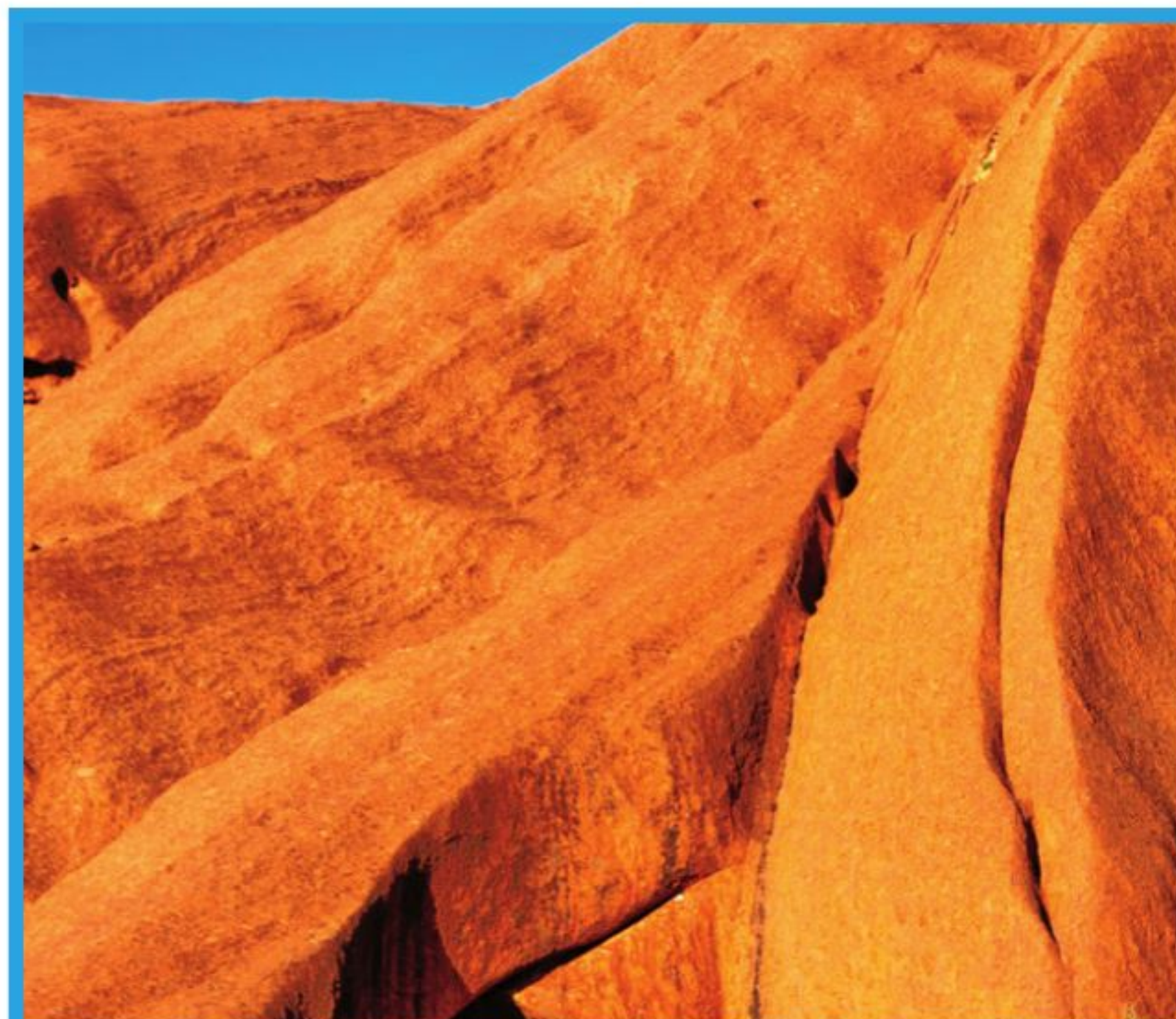
ORNGAAKO



AWSCYSAOR



NREMBOGAO



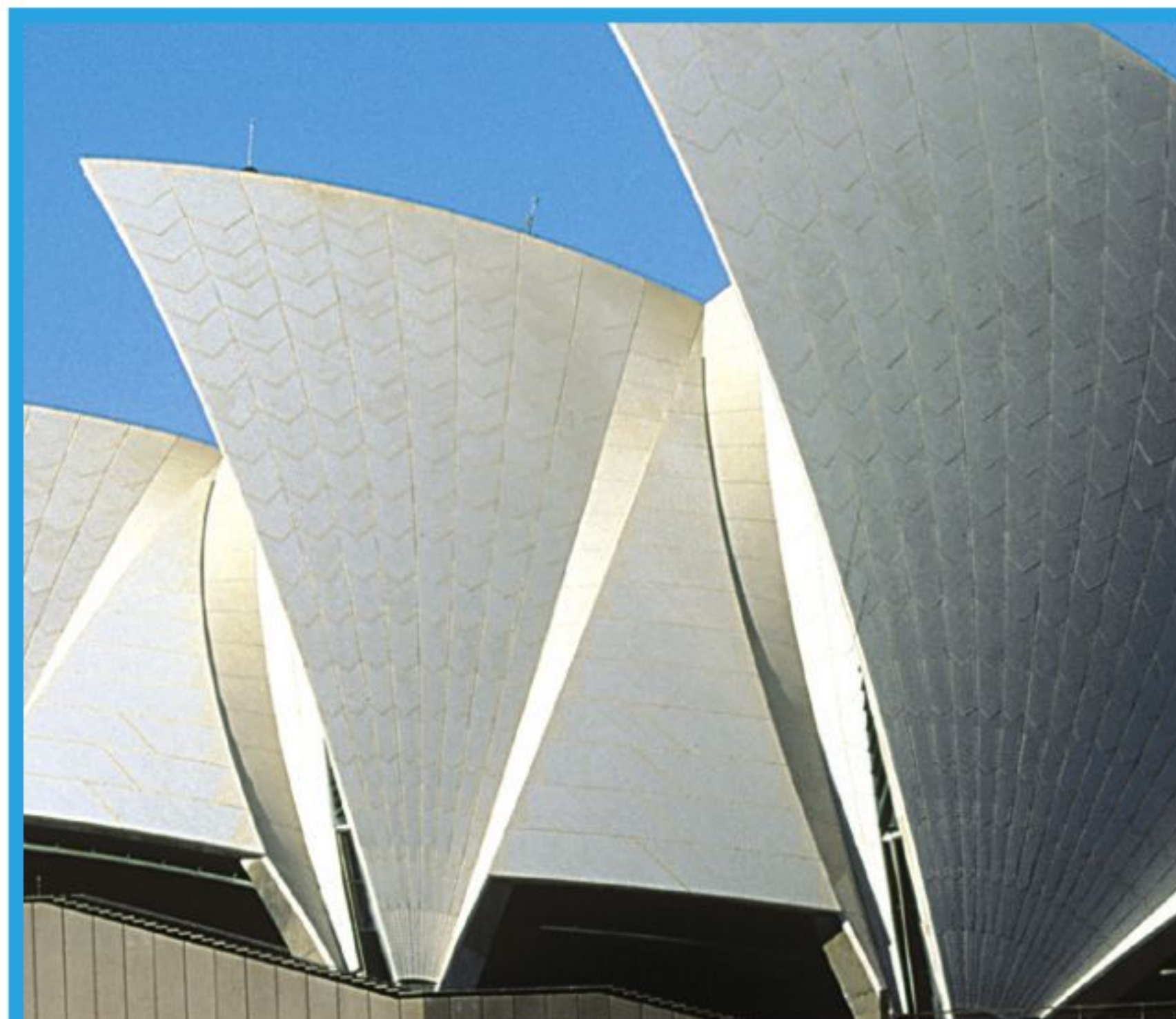
RULUU



LAFG



OAAKL



DENYYS EORAP
OESUH

JOKE: Where do kangaroos go to get their eyes tested?

ANSWER: T _ _ _ H _ _ _ T _ _ _ E _ _ _ _ _ T !

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FUNNY FILL-IN

KA-CHING!

Ask a friend to give you words to fill in the blanks in this story without showing it to them. Then read it out loud for a laugh.

GRAMMAR TERMS!

Noun – a person, place or thing

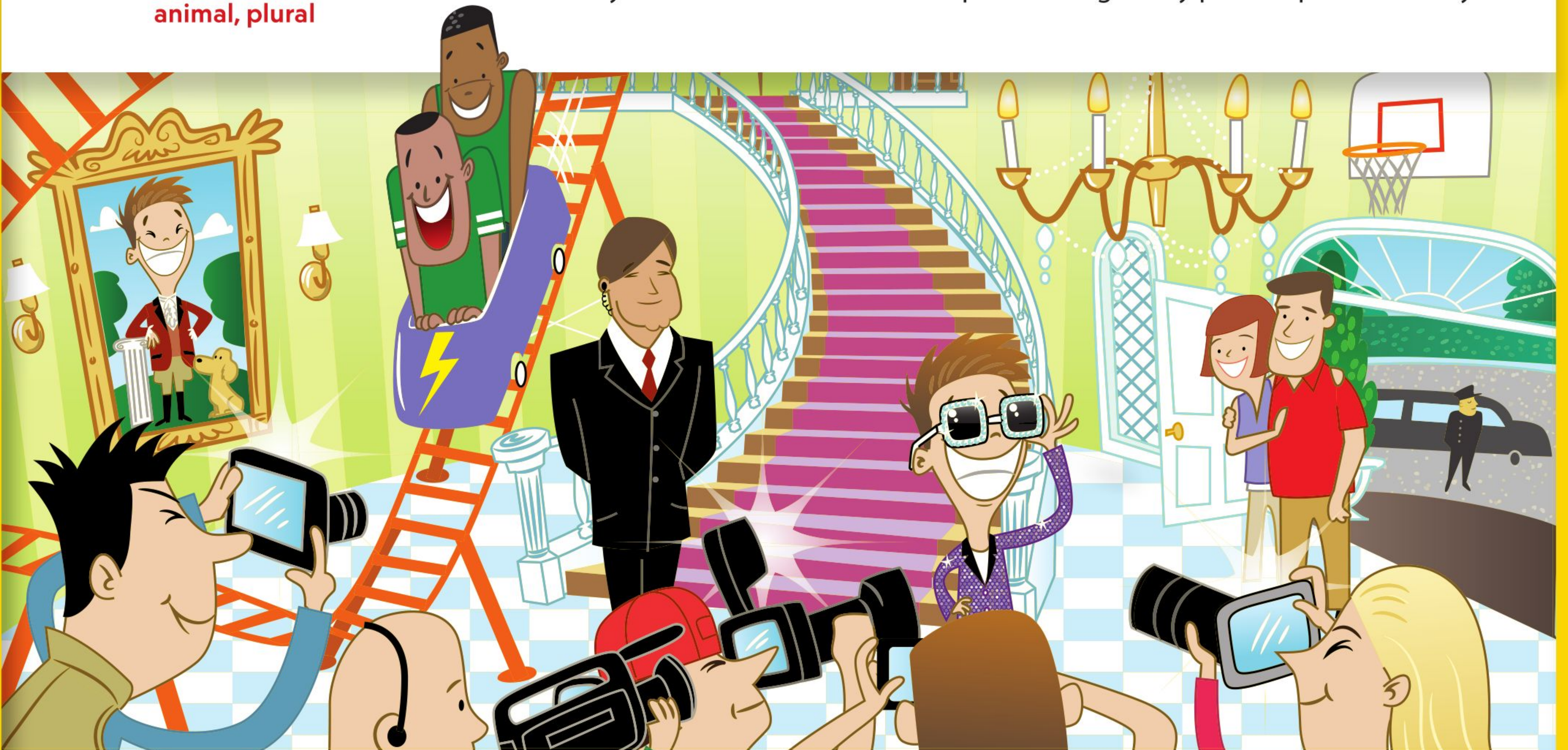
Verb – an action word that describes what a person or thing does

Adjective – a word that describes a noun

Adverb – a word that describes a verb



_____ ! I just received _____ billion dollars from my _____.
silly expression **large number** **adjective**
 _____ for my birthday. I know exactly what I'll do with the money. First I'll buy the _____.
distant relative **favourite sports team**
 Maybe I could hire _____ to be my _____. I'm going to have all my _____.
famous athlete **type of job** **article of clothing, plural**
 made of _____ and build a _____ in my new _____. I'll ride
noun, plural **theme park ride** **room of a house**
 a(n) _____ to school – no more bus rides for me. And now I can get
adjective **type of transportation**
 _____ a(n) _____ like they always wanted. I think I'll start a charity to save the
friend's name **noun**
 _____. I'm so rich I can try to make the world a better place. And give my parents pocket money!
animal, plural



FIND THE HIDDEN ANIMALS

Animals often **blend in** with their **environments** for **protection**. Find the species listed below in the pictures, writing the letter of the **correct photo** next to the **name** of each **animal**.

Answers on page 49

1. Pygmy seahorses _____

2. Proboscis bats _____

3. Stone grasshopper _____

4. Grey wolf _____

5. Lion _____

6. European hares _____



STUMP YOUR PARENTS

Have a go at these tricky questions and then get your folks to try. Can you get a higher score than them?!

Answers on page 49

1 What inspired the hula hoop craze of the late 1950s?

- A. Circular branches used by monkeys
- B. Tyre rims used by Swedish kids
- C. Metal hoops used by factory workers
- D. Bamboo hoops used by Australian kids



2 Most people lose strands of hair every day.

- A. 1-5 C. 1,000
- B. 50-100 D. 10,000

3 In the Netherlands, it is most polite to eat your bread with

- A. Your hands
- B. A knife and fork
- C. Your feet
- D. Chopsticks



4 The pirate Blackbeard put under his hat to scare captured sailors.

- A. Burning ropes C. Daggers
- B. Black dye D. Rats

5 What is Iron Man's true identity?

- A. Peter Parker
- B. Scott Lang
- C. Tony Stark
- D. Bruce Banner



6 Why do cats get stuck in trees?

- A. They like the view
- B. They're afraid of heights
- C. Their claws are curved so that they can climb up easily, but not down
- D. They're secret BFFs with birds

7 A group of adult alligators is sometimes known as a

- A. Herd C. Crash
- B. Congregation D. Hive



8 In which country do almost half the highways have no speed limit?

- A. Germany C. Japan
- B. Switzerland D. Botswana

9 If grasshoppers were the size of people, how far would they be able to leap?

- A. The length of a bicycle
- B. The length of a small car
- C. The length of a bus
- D. The length of a basketball court

10 How much is Mount Everest growing in height each year?

- A. 6mm
- B. 6cm
- C. 60cm
- D. 6m



MEGA BRAIN

SAY WHAT YOU SEE!

Can you work out which animals are represented by these groups of pictures?

1

2

3

4

MEMORY TEST!

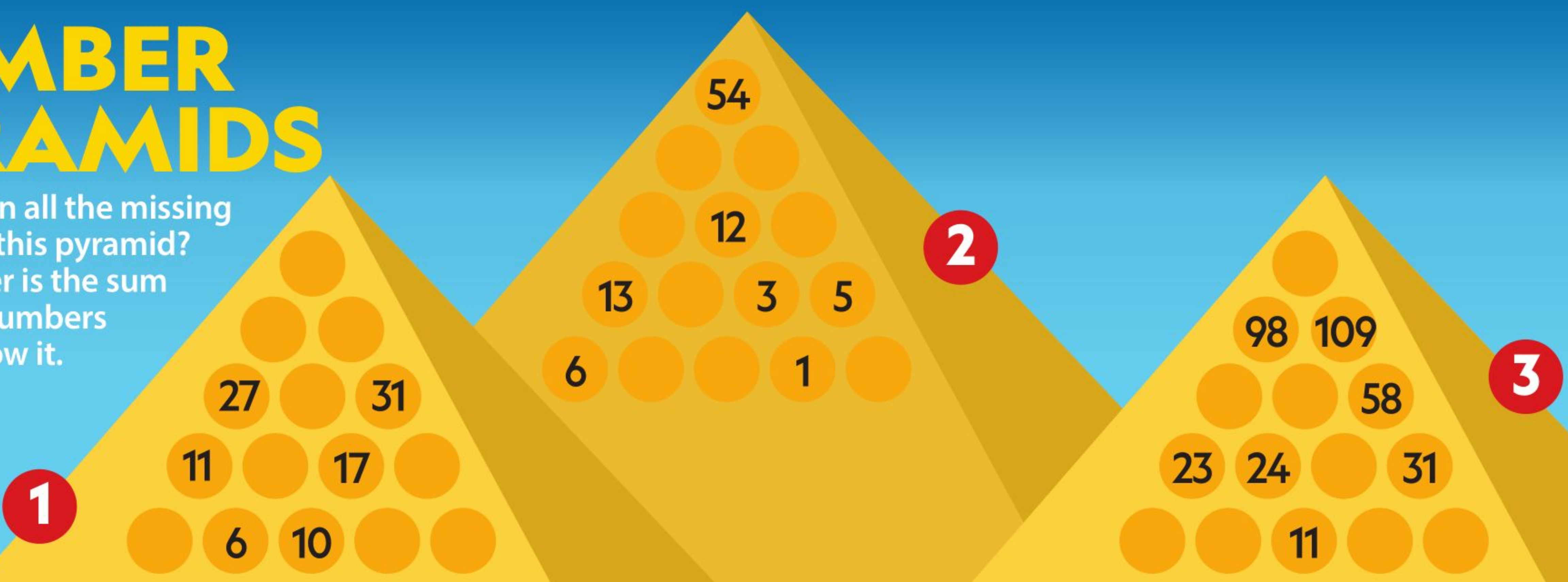
Stare at this picture of aliens for 30 seconds, taking in as much detail as you can. Then cover it up and try to answer these questions. No peeking!



- The blue alien has four eyes. TRUE ☐ FALSE ☐
- Two aliens are in the space ship. TRUE ☐ FALSE ☐
- There are three purple planets. TRUE ☐ FALSE ☐
- One planet has a ring around it. TRUE ☐ FALSE ☐
- Two of the aliens have no limbs. TRUE ☐ FALSE ☐
- Only one alien is smiling. TRUE ☐ FALSE ☐

NUMBER PYRAMIDS

Can you fill in all the missing numbers in this pyramid? Each number is the sum of the two numbers directly below it.



TRAINING!

Answers
on page
49

Perplexing
puzzles to get
your brain in gear!

DOUBLE TROUBLE

Which two of these silly
monsters are exactly the same?



MATHS RIDDLES

Get your head around
these tricky teasers!

1 When Brian was 8 years old, his sister Belinda was half his age. If Brian is 30 today, how old is Belinda?



2 The total cost of a tiger onesie plus some new trainers is \$150. The tiger onesie costs \$100 more than the trainers.

How much do they each cost?



3 Take a look at this picture of a car park. Which bay number is the blue car parked in?



MISSING LETTERS!

Fill in the blanks so that a word is formed either side. If you do it correctly, you'll spell out the name of some capital cities! For bonus points, can you name the country they're the capital of?

1

SPO		EEN
ZER		NTO
TOO		ISS
GRE		ETI
INT		VER

2

MEA		INE
PUK		VER
DRA		ING
SAI		OOR
ABL		CHO
WEL		EAF
RUS		OME
ANT		NCH

3

BEL		AMB
YOG		NTO
HAR		ATE
AQU		GED



FUN STUFF MAKE IT

MAKE MARBLED PAPER!

Create some swirly-patterned paper...

TOP TIP
Put some newspaper down before you start!



What you'll need

- Baking dish or tray
- Shaving foam
- Spatula
- Paints
- Paintbrush or stick
- Paper
- Plastic ruler
- Big bowl to scrape excess foam into

Start here!



- 1** Squirt some shaving foam into the baking tray and smooth it using a spatula.



- 2** Add some drops of paint to the shaving cream.



- 3** Using the end of a paint brush, a stick or your fingers, start to swirl the blobs of paint together. Add another colour if you like (we used pink) and swirl some more!



- 4** When you're happy with the pattern, place a piece of paper on top of the shaving foam and press it down firmly with your fingers. Leave for a minute or so.



TOP TIP
To make more prints, just add more paint to the foam. If you want to use new colours, scrape off the top layer of foam first!



- 5** Slowly peel the paper off the foam and put it on a protected surface. It'll look a bit of the mess, until the next step...



- 6** Holding one edge of the paper with your fingers, press the ruler down on the paper and drag it across the paper to scrape the excess foam off. A marbled print should be revealed! Leave to dry.

WACKY WORLD!

Check out the planet's strangest pictures...



Green living!

This **abandoned village** on the island of **Shengshan** in **China** has a **new population** living in (and on) its **cliffside houses** – **plants** and **animals**! When the last human residents moved out of **Houtouwan** in **2002**, nature moved in and now the fishing village's buildings are completely covered in **ivy**, **vines**, **flowers**, **insects** and **birds**. Wild!



Plush Paris!

Check out these **giant teddy bears**, which are hanging out in **cafes**, **restaurants**, **shops** and even **hairdressers** in **Paris, France**! The **1.4-m-tall** plush toys were posed by a local **bookshop owner** who wanted to spread cheer around the city's **Gobelins** district. They've certainly kept people smiling during Covid-19!



Botanical beauties!

Take a close look at **Helen Ahpornsiri**'s amazing art. She uses **pressed flowers** and **leaves** from her **garden**, or **algae** collected from **beaches**, to create beautiful pictures of **animals**. "I tend to use **ferns** and common **wildflowers** as I like the idea of giving something that's **unassuming**, or thought of as a **weed**, a **new story**," she says. Awesome work, Helen!



ANIMAL 'AIRCUTS'

Ok, who got carried away with the **clippers**?! These **alpacas**, snapped at **Wangcheng Zoo** in **China**, have been given a **silly snip**!



CRAZY KOOKABURRA

Artist **Farvardin Daliri** has been cheering people up around **Brisbane** during lockdown. He's built a **750-kg mechanical sculpture** of a **kookaburra** – which **laughs**. Genius!



PLEASED TO EAT YOU!

Staff at the **Henn-na Hotel** in **Japan's Huis Ten Bosch theme park** are all **robots**! The check-in desk is even 'manned' by this **robotic dinosaur**. Yikes!



NATIONAL GEOGRAPHIC KIDS

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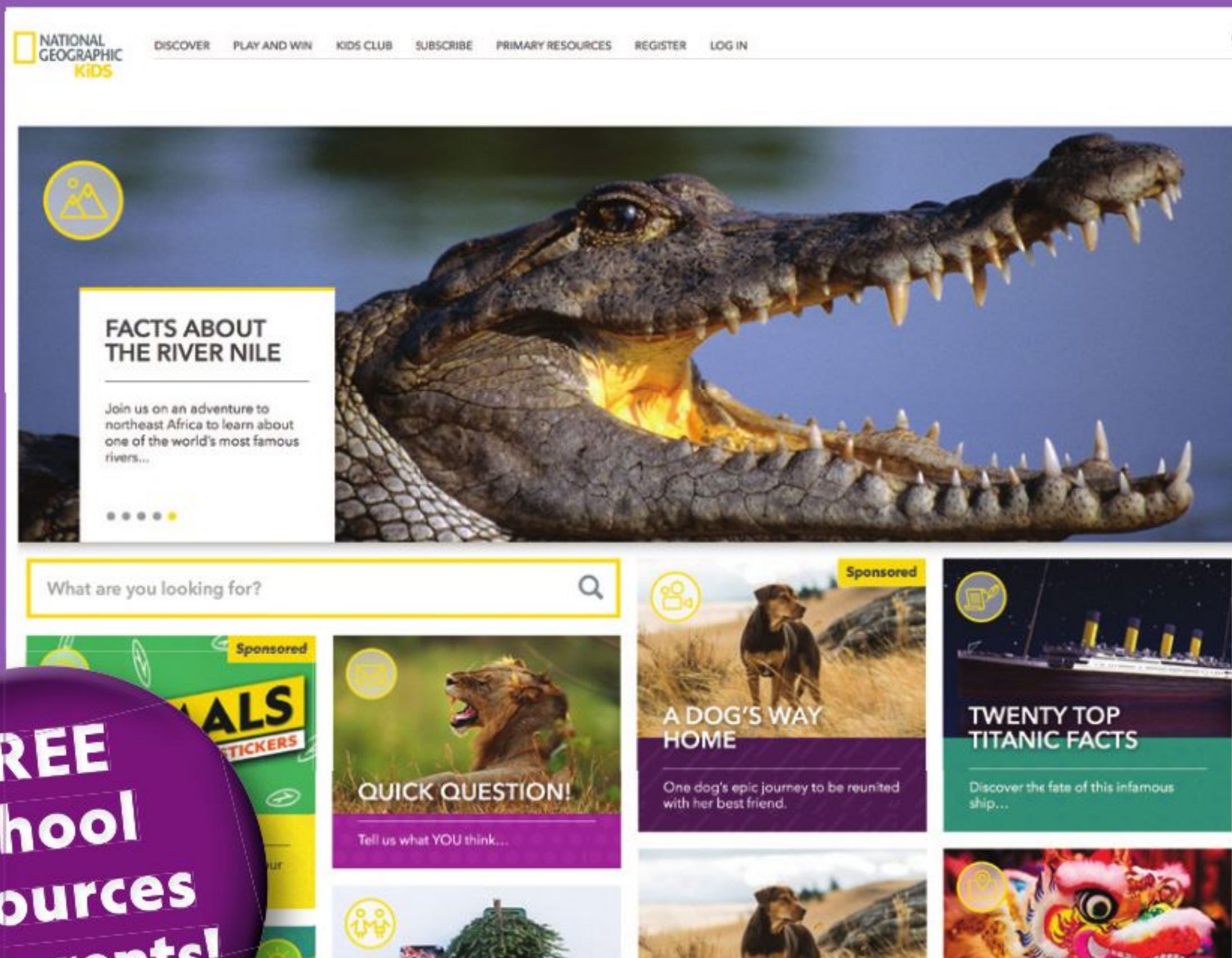
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